on historical volatility over a period prior to the measurement date equal to the option's expected life. Dividend yield is based on the option's exercise price and annual dividend rate at the time of grant.

The following summarizes stock option activity for 2008:

	Options Outstanding			Exercisable Options		
	Shares	Weighted Average Exercise Price	Weighted Average Remaining Life (Years)	Shares	Weighted Average Exercise Price	Weighted Average Remaining Life (Years)
December 31, 2007	8,485,709	$ 47.19	6.6	5,644,970	$ 46.19	5.6
Granted	150,662	56.42				
Exercised	(362,364)	43.70				
Lapsed	(49,520)	51.12				
April 30, 2008	8,224,487	$ 47.49	6.4	6,671,149	$ 46.76	5.8

The aggregate intrinsic value of options outstanding and exercisable at April 30, 2008 was $43,240 and $39,940, respectively. The total intrinsic value of options exercised was $3,281 and $33,705 and $8,500 in 2008, 2007 and 2006, respectively. The total unrecognized compensation cost related to all share-based compensation plans at April 30, 2008 amounted to approximately $9,624 which is expected to be recognized over the next three years.

As of April 30, 2008 and December 31, 2007, TAP has recorded a liability for exercised options of $266 and $25,990, respectively, as a payable to Abbott. TAP also has recorded a liability for options issued before the adoption of Emerging Issues Task Force Issue No. 2-08, *Accounting for Options Granted to Employees in Unrestricted, Publicly Traded Shares of an Unrelated Entity,* for the difference between the market value and strike price of vested yet unexercised options of $11,926 and $20,838 as of April 30, 2008

Note 7. Incentive Stock Program (Continued)

and December 31, 2007, respectively. Total expense (income) related to the Abbott Incentive Stock Program of $(21,825), $59,549 and $49,489 was recorded as Selling, general and administrative expense in 2008, 2007 and 2006, respectively. The amount of income tax benefit realized from stock options exercised in 2008, 2007 and 2006, amounted to $1,327, $7,654 and $2,236, respectively.

The number of restricted stock units outstanding and the weighted-average grant date fair value at April 30, 2008 and December 31, 2007 was 26,588 and $49.66 and 43,791 and $49.17, respectively. There were no restricted stock units granted during the four months ended April 30, 2008. The number of restricted stock units and the weighted-average grant-date fair value that vested during the four months ending April 30, 2008 were 17,203 and $48.42, respectively. There were no restricted stock units that lapsed during the four months ending April 30, 2008. The fair value of restricted stock units that vested in the first four months ending April 30, 2008 was $956.

Due to the significant impact of fluctuations in the market price of Abbott common stock on the amount of recorded compensation expense of options issued under the Abbott Incentive Stock Program, TAP entered into an ISDA Master Agreement (Master Agreement), dated September 29, 2000, which allows TAP to enter into equity swap transactions to hedge this market price exposure. Each equity swap transaction guarantees a return equal to the actual return on a specified number of shares of Abbott common stock and, as such, effectively acts as a hedge of the Abbott Incentive Stock Program. From time to time, TAP enters into equity swap transactions under the Master Agreement. Each transaction has a term of one to three years and requires quarterly cash settlement resulting in all gains and losses being realized and recorded in the statements of income. Each transaction requires on-going quarterly interest payments based on the equity notional amount, or the fair value of Abbott common stock shares swapped under each transaction at the date of the swap at a rate of LIBOR plus 114 basis points or 100 basis points for transactions prior to October 2003. This agreement ended on April 2, 2008. Each equity swap transaction is recorded at fair value. The fair value of equity swaps was $(10,593) as of December 31, 2007, and is recorded as Accrued liabilities in the balance sheet for December 31, 2007. For 2008, 2007 and 2006, TAP recorded as Selling, general and administrative expenses $6,855, $(39,674) and $(47,554), respectively, of (gain) loss related to the equity swap investments.

Note 8. Income Taxes

Taxes on earnings reflect the estimated annual effective rates, including charges for interest and penalties. Deferred income taxes reflect the tax consequences on future years of differences between the tax bases of assets and liabilities and their financial reporting amounts.

TAP's U.S. income tax liabilities for years 2001 and 2006 are subject to final determination by the Internal Revenue Service (IRS). The IRS has challenged the deductibility of an item in TAP's 2001 tax return. Management believes its deduction is proper and expects the ultimate resolution will not have a material impact on TAP's financial position or results of operations. There are numerous other income tax jurisdictions for which tax returns are not yet settled, none of which are individually significant.

Note 8. Income Taxes (Continued)

The provision for income taxes includes the following components:

	4/30/2008	12/31/2007	12/31/2006
Current:			
U.S. Federal	$ 98,439	$549,950	$593,729
State	(1,278)	23,280	30,906
Total current	97,161	573,230	624,635
Deferred:			
U.S. Federal	20,486	(6,868)	(49,375)
State	460	2,096	(3,068)
Total deferred	20,946	(4,772)	(52,443)
Total	$118,107	$568,458	$572,192

Differences between the effective tax rate and the U.S. statutory tax rate were as follows:

	2008	2007	2006
Statutory tax rate	35.0%	35.0%	35.0%
State income taxes, net of federal income tax benefit	(0.2)	1.1	1.2
Other	(1.6)	0.2	1.4
Effective tax rate	33.2%	36.3%	37.6%

As of April 30, 2008 and December 31, 2007, total deferred tax assets were $124,764 and $147,566, respectively, and total deferred tax liabilities were $7,082 and $9,686, respectively. The tax effect of the differences that give rise to deferred tax assets and liabilities were as follows:

	4/30/2008	12/31/2007
Accounts receivable allowances and inventory reserves	$ 12,253	$ 17,503
Accrued rebates	26,352	23,734
Accrued compensation and benefits	34,922	41,485
Other, primarily accrued legal expenses, state and local taxes, and prepaid royalties not currently deductible	44,155	55,158
Total	117,682	137,880
Less current portion	(53,343)	(70,744)
Long-term net deferred tax assets	$ 64,339	$ 67,136

On January 1, 2007, TAP adopted the provisions of FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No 109*. Under this Interpretation, in order to recognize an uncertain tax benefit, the taxpayer must be more likely than not of sustaining the position, and the measurement of the benefit is calculated as the largest amount that is more than 50 percent likely to be realized upon resolution of the benefit. Adoption of this Interpretation did not have

Note 8. Income Taxes (Continued)

a material impact on TAP's financial position. The following summarizes the activity for the unrecognized tax benefits:

Balance — December 31, 2007	$111,750
Increase due to prior year tax positions	4,313
Decrease due to prior year tax positions	(5,079)
Increase due to current tax positions	2,911
Settlements	(17,300)
Lapse of statute of limitations	(3,157)
Balance — April 30, 2008	$ 93,438

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate is approximately $53,000. Due to the inherent uncertainties in tax audits, TAP is unable to estimate the range of reasonably possible change in its unrecognized tax benefits, if any, within the next twelve months. Reserves for interest and penalties are not significant.

Note 9. Litigation and Related Matters

There are several civil actions pending brought by individuals or entities that allege generally that TAP and numerous pharmaceutical companies reported false or misleading pricing information relating to the average wholesale price of certain pharmaceutical products in connection with federal, state and private reimbursement. Civil actions have also been brought against TAP and other members of the pharmaceutical industry, by state attorneys general seeking to recover alleged damages on behalf of state Medicaid programs. The outcome of these investigations and litigation could include the imposition of fines and penalties. TAP is unable to estimate the amount of possible loss, and no loss reserves have been recorded for these exposures.

Within the next year, other legal proceedings may occur that may result in a change in the estimated reserves recorded by TAP. While it is not feasible to predict the outcome of such pending claims, proceedings and investigations with certainty, management is of the opinion, except as noted in the paragraph above, that their ultimate disposition should not have a material adverse effect on TAP's financial position, cash flows or results of operations.

Note 10. Related-Party Transactions

Various agreements exist among TAP, Abbott and Takeda and subsidiaries. All amounts due from and payable to Abbott and Takeda and subsidiaries have been reflected in the balance sheets in the captions Receivable from Abbott, Receivable from Takeda and subsidiaries, Payable to Abbott, and Payable to Takeda and subsidiaries.

TAP purchases all *Lupron* and *Prevacid* unpackaged finished goods inventories from Takeda and subsidiaries. Purchases are contracted at fixed Yen-denominated prices. The amount paid to Takeda and subsidiaries for purchases of these inventories for the four months ending April 30, 2008, and years ended December 31, 2007 and 2006, totaled $209,205, $488,160 and $609,436, respectively. TAP has royalty agreements with Takeda and subsidiaries for sales of *Lupron* and *Prevacid*. For the four months ending April 30, 2008, and years ended December 31, 2007, and 2006, TAP recorded royalty expense of $48,042, $163,572 and $179,770, respectively. Beginning in 2007, TAP co-promotes certain Takeda and subsidiaries' products. TAP recognized co-promotion revenue relating to this agreement of $21,748 for the four months ending April 30, 2008 and $79,422 for the year ended December 31, 2007.

Note 10. Related-Party Transactions (Continued)

TAP pays Abbott for services related to packaging and warehousing, research and development and administrative functions. Amounts incurred for these services totaled $17,488, $53,967 and $60,425 for the four months ending April 30, 2008, and years ended December 31, 2007 and 2006, respectively. In addition, Abbott purchased, for international markets, TAP's products for $34,695, $93,437 and $84,515 for the four months ending April 30, 2008, and for the years ended December 31, 2007 and 2006, respectively.

Note 11. Subsequent Event

Subsequent to April 30, 2008, the estimate of exposure relating to the item in dispute with the IRS from the 2001 tax return (see Note 8) was increased by $22,000 as a result of negotiations with the IRS. Under the terms of the tax sharing agreement between Takeda and Abbott, this amount will be split evenly between the two shareholders upon final settlement with the IRS.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
TAP Pharmaceutical Products, Inc.:

We have audited the accompanying consolidated balance sheets of TAP Pharmaceutical Products, Inc. and subsidiaries (the "Company") as of April 30, 2008, and December 31, 2007, and the related consolidated statements of income and comprehensive income, shareholders' equity, and cash flows for the four months ended April 30, 2008, and the years ended December 31, 2007 and 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of TAP Pharmaceutical Products, Inc. and subsidiaries as of April 30, 2008 and December 31, 2007, and the results of their operations and their cash flows for the four months ended April 30, 2008, and the years ended December 31, 2007 and 2006, in conformity with accounting principles generally accepted in the United States of America.

As described in Note 1, the TAP joint venture was dissolved as of the close of business April 30, 2008. As part of the dissolution, Abbott Laboratories receives the rights to the *Lupron* business and Takeda Pharmaceutical Company, Ltd. receives the rights to the *Prevacid* business. The TAP businesses will continue under the management of either Abbott or Takeda. Effective May 1, 2008, TAP became a wholly owned subsidiary of Takeda America Holdings, Inc. Subsequently, Takeda merged TAP into two other Takeda entities. The financial statements do not include any adjustments that might result from the outcome of this dissolution.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
August 27, 2008

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Evaluation of disclosure controls and procedures. The Chief Executive Officer, Miles D. White, and the Chief Financial Officer, Thomas C. Freyman, evaluated the effectiveness of Abbott Laboratories' disclosure controls and procedures as of the end of the period covered by this report, and concluded that Abbott Laboratories' disclosure controls and procedures were effective to ensure that information Abbott is required to disclose in the reports that it files or submits with the Securities and Exchange Commission under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and to ensure that information required to be disclosed by Abbott in the reports that it files or submits under the Exchange Act is accumulated and communicated to Abbott's management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Internal Control Over Financial Reporting

Management's annual report on internal control over financial reporting. Management's report on Abbott's internal control over financial reporting is included on page 73 hereof. The report of Abbott's independent registered public accounting firm related to their assessment of the effectiveness of internal control over financial reporting is included on page 75 hereof.

Changes in internal control over financial reporting. During the quarter ended December 31, 2008, there were no changes in Abbott's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that have materially affected, or are reasonably likely to materially affect, Abbott's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Incorporated herein by reference are "Information Concerning Nominees for Directors," "Committees of the Board of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance," and "Procedure for Recommendation and Nomination of Directors and Transaction of Business at Annual Meeting" to be included in the 2009 Abbott Laboratories Proxy Statement. The 2009 Proxy Statement will be filed on or about March 13, 2009. Also incorporated herein by reference is the text found under the caption, "Executive Officers of the Registrant" on pages 19 through 22 hereof.

Abbott has adopted a code of ethics that applies to its principal executive officer, principal financial officer, and principal accounting officer and controller. That code is part of Abbott's code of business conduct which is available free of charge through Abbott's investor relations website (www.abbottinvestor.com) and is available in print to any shareholder who sends a request for a paper copy

to: Abbott Laboratories, 100 Abbott Park Road, Dept. 362, AP6D2, Abbott Park, Illinois 60064-6048, attn. Investor Relations. Abbott intends to include on its website (www.abbott.com) any amendment to, or waiver from, a provision of its code of ethics that applies to Abbott's principal executive officer, principal financial officer, and principal accounting officer and controller that relates to any element of the code of ethics definition enumerated in Item 406(b) of Regulation S-K.

ITEM 11. EXECUTIVE COMPENSATION

The material to be included in the 2009 Proxy Statement under the headings "Director Compensation," "Executive Compensation," and "Compensation Committee Report" is incorporated herein by reference. The 2009 Proxy Statement will be filed on or about March 13, 2009.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

(a)
Equity Compensation Plan Information. The material to be included in the 2009 Proxy Statement under the heading "Equity Compensation Plan Information" is incorporated herein by reference. The 2009 Proxy Statement will be filed on or about March 13, 2009.

(b)
Information Concerning Security Ownership. Incorporated herein by reference is the material under the heading "Security Ownership of Executive Officers and Directors" in the 2009 Proxy Statement. The 2009 Proxy Statement will be filed on or about March 13, 2009.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The material to be included in the 2009 Proxy Statement under the headings "The Board of Directors," "Committees of the Board of Directors," "Corporate Governance Materials," and "Approval Process for Related Person Transactions" is incorporated herein by reference. The 2009 Proxy Statement will be filed on or about March 13, 2009.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The material to be included in the 2009 Proxy Statement under the headings "Audit Fees and Non-Audit Fees" and "Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of the Independent Auditor" is incorporated herein by reference. The 2009 Proxy Statement will be filed on or about March 13, 2009.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Form 10-K.

(1)

Financial Statements: See Item 8, "Financial Statements and Supplementary Data," on page 43 hereof, for a list of financial statements.

(2)
Financial Statement Schedules: The required financial statement schedules are found on the pages indicated below. These schedules should be read in conjunction with the Consolidated Financial Statements of Abbott Laboratories and TAP Pharmaceutical Products Inc.:

(3)
Exhibits Required by Item 601 of Regulation S-K: The information called for by this paragraph is incorporated herein by reference to the Exhibit Index on pages 102 through 107 of this Form 10-K.

(b) Exhibits filed (see Exhibit Index on pages 102 through 107).

(c) Financial Statement Schedules filed (pages 98 and 100).

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Abbott Laboratories has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ABBOTT LABORATORIES

By /s/ MILES D. WHITE

Miles D. White
Chairman of the Board and
Chief Executive Officer

Date: February 20, 2009

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Abbott Laboratories on February 20, 2009 in the capacities indicated below.

/s/ MILES D. WHITE

Miles D. White
Chairman of the Board, Chief Executive Officer and Director of Abbott Laboratories (principal executive officer)

/s/ ROBERT J. ALPERN, M.D.

Robert J. Alpern, M.D.
Director of Abbott Laboratories

/s/ THOMAS C. FREYMAN

Thomas C. Freyman
Executive Vice President, Finance and Chief Financial Officer (principal financial officer)

/s/ ROXANNE S. AUSTIN

Roxanne S. Austin
Director of Abbott Laboratories

/s/ GREG W. LINDER

Greg W. Linder
Vice President and Controller
(principal accounting officer)

/s/ WILLIAM M. DALEY

William M. Daley
Director of Abbott Laboratories

/s/ W. JAMES FARRELL

W. James Farrell
Director of Abbott Laboratories

/s/ H. LAURANCE FULLER

H. Laurance Fuller
Director of Abbott Laboratories

/s/ WILLIAM A. OSBORN

William A. Osborn
Director of Abbott Laboratories

/s/ DAVID A. L. OWEN

David A. L. Owen
Director of Abbott Laboratories

/s/ BOONE POWELL JR.

Boone Powell Jr.
Director of Abbott Laboratories

/s/ W. ANN REYNOLDS, PH.D.

W. Ann Reynolds, Ph.D.
Director of Abbott Laboratories

/s/ ROY S. ROBERTS

Roy S. Roberts
Director of Abbott Laboratories

/s/ SAMUEL C. SCOTT III

Samuel C. Scott III
Director of Abbott Laboratories

/s/ WILLIAM D. SMITHBURG

William D. Smithburg
Director of Abbott Laboratories

/s/ GLENN F. TILTON

Glenn F. Tilton
Director of Abbott Laboratories

ABBOTT LABORATORIES AND SUBSIDIARIES
SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED DECEMBER 31, 2008, 2007 AND 2006
(in thousands of dollars)

Allowances for Doubtful Accounts	Balance at Beginning of Year	Provisions/ Charges to Income	Amounts Charged Off Net of Recoveries	Balance at End of Year
2008	$258,288	$ 20,057	$ (14,713)	$263,632
2007	215,443	70,893	(28,048)	258,288
2006	203,683	30,365	(18,605)	215,443

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Abbott Laboratories:

We have audited the consolidated financial statements of Abbott Laboratories and subsidiaries (the "Company") as of December 31, 2008, 2007, and 2006, and for the years then ended, and the Company's internal control over financial reporting as of December 31, 2008, and have issued our reports thereon dated February 19, 2009, which report relating to the consolidated financial statements expresses an unqualified opinion and includes an explanatory paragraph regarding the adoption of new accounting standards in 2007 and 2006; such reports are included elsewhere in this Form 10-K. Our audits also included the consolidated financial statement schedule of the Company listed in Item 15. This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
February 19, 2009

TAP PHARMACEUTICAL PRODUCTS INC. AND SUBSIDIARIES

SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS

FOR THE FOUR MONTHS ENDED APRIL 30, 2008, AND THE YEARS ENDED

DECEMBER 31, 2007 AND 2006

(in thousands of dollars)

Allowances for Doubtful Accounts and Sales Deductions	Balance at Beginning of Period	Provisions/ Charges to Income(a)	Amounts Charged Off Net of Recoveries	Balance at End of Period
2008	$57,953	$ 31,695	$ (45,941)	$ 43,707
2007	54,141	142,035	(138,223)	57,953
2006	57,447	159,360	(162,666)	54,141

(a) Represents provisions related to allowances for doubtful accounts and net change in the allowances for sales deductions.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of TAP Pharmaceutical Products Inc.

We have audited the consolidated financial statements of TAP Pharmaceutical Products Inc. and subsidiaries (the "Company") as of April 30, 2008, and December 31, 2007 and 2006, and for the four months ended April 30, 2008, and the years ended December 31, 2007 and 2006, and have issued our report thereon dated August 27, 2008; such consolidated financial statements and report are included in this Annual Report on Form 10-K. Our audits also included the consolidated financial statement schedule of the Company listed in Item 15. This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
August 27, 2008

EXHIBIT INDEX
ABBOTT LABORATORIES
ANNUAL REPORT
FORM 10-K
2008

Exhibits 32.1 and 32.2 are furnished herewith and should not be deemed to be "filed under the Securities Exchange Act of 1934."

10-K Exhibit Table Item No.	
2.1	*Contribution and Exchange Agreement by and among Abbott Laboratories, Takeda Pharmaceutical Company Limited, Takeda America Holdings, Inc., TAP Pharmaceutical Products Inc., Lake Products Inc. and Takeda Pharmaceuticals LLC, dated as of March 19, 2008, filed as Exhibit 2.1 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended March 31, 2008.
2.2	*Agreement and Plan of Merger, dated as of January 11, 2009, by and among Abbott Laboratories, Rainforest Acquisition Inc. and Advanced Medical Optics, Inc., filed as Exhibit 2.1 to the Abbott Laboratories Current Report on Form 8-K dated January 11, 2009.
3.1	*Articles of Incorporation, Abbott Laboratories, filed as Exhibit 3.1 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended March 31, 1998.
3.2	*Corporate By-Laws, Abbott Laboratories, filed as Exhibit 3.1 to the Abbott Laboratories Current Report on Form 8-K dated October 10, 2008.
4.1	Abbott Laboratories Deferred Compensation Plan, as amended effective January 1, 2008.
4.2	*Indenture dated as of February 9, 2001, between Abbott Laboratories and The Bank of New York Mellon Trust Company, N.A. (as successor to J.P. Morgan Trust Company, National Association, successor to Bank One Trust Company, N.A.) (including form of Security), filed as Exhibit 4.1 to the Abbott Laboratories Registration Statement on Form S-3 dated February 12, 2001.
4.3	*Supplemental Indenture dated as of February 27, 2006, between Abbott Laboratories and The Bank of New York Mellon Trust Company, N.A. (as successor to J.P. Morgan Trust Company, National Association), filed as Exhibit 4.2 to the Abbott Laboratories Registration Statement on Form S-3 dated February 28, 2006.
4.4	*Form of 3.5% Note, filed as Exhibit 4.29 to the 2003 Abbott Laboratories Annual Report on Form 10-K.
4.5	*Actions of Authorized Officers with Respect to Abbott's 3.5% Notes, filed as Exhibit 4.30 to the 2003 Abbott Laboratories Annual Report on Form 10-K.
4.6	*Officers' Certificate and Company Order with respect to Abbott's 3.5% Notes, filed as Exhibit 4.31 to the 2003 Abbott Laboratories Annual Report on Form 10-K.
4.7	*Form of 3.75% Note, filed as Exhibit 4.28 to the 2004 Abbott Laboratories Annual Report on Form 10-K.
4.8	*Form of 4.35% Note, filed as Exhibit 4.29 to the 2004 Abbott Laboratories Annual Report on Form 10-K.

10-K Exhibit Table

Item No.	
4.9	*Actions of Authorized Officers with respect to Abbott's 3.75% Notes and 4.35% Notes, filed as Exhibit 4.30 to the 2004 Abbott Laboratories Annual Report on Form 10-K.
4.10	*Officers' Certificate and Company Order with respect to Abbott's 3.75% Notes and 4.35% Notes, filed as Exhibit 4.31 to the 2004 Abbott Laboratories Annual Report on Form 10-K.
4.11	*Form of 5.375% Note, filed as Exhibit 99.3 to the Abbott Laboratories Current Report on Form 8-K dated May 9, 2006.
4.12	*Form of 5.600% Note, filed as Exhibit 99.3 to the Abbott Laboratories Current Report on Form 8-K dated May 9, 2006.
4.13	*Form of 5.875% Note, filed as Exhibit 99.3 to the Abbott Laboratories Current Report on Form 8-K dated May 9, 2006.
4.14	*Actions of the Authorized Officers with respect to Abbott's 5.375% Notes, 5.600% Notes and 5.875% Notes, filed as Exhibit 99.3 to the Abbott Laboratories Current Report on Form 8-K dated May 9, 2006.
4.15	*Officers' Certificate and Company Order with respect to Abbott's 5.375% Notes, 5.600% Notes and 5.875% Notes, filed as Exhibit 4.25 to the 2006 Abbott Laboratories Report on Form 10-K.
4.16	*Actions of the Authorized Officers with respect to Abbott's 5.150% Notes due 2012, 5.600% Notes due 2017 and 6.150% Notes due 2037, filed as Exhibit 99.3 to the Abbott Laboratories Current Report on Form 8-K dated November 6, 2007.
4.17	*Form of $1,000,000,000 5.150% Note due 2012, filed as Exhibit 99.4 to the Abbott Laboratories Current Report on Form 8-K dated November 6, 2007.
4.18	*Form of $1,500,000,000 5.600% Note due 2017, filed as Exhibit 99.5 to the Abbott Laboratories Current Report on Form 8-K dated November 6, 2007.
4.19	*Form of $1,000,000,000 6.150% Note due 2037, filed as Exhibit 99.6 to the Abbott Laboratories Current Report on Form 8-K dated November 6, 2007.
	Other debt instruments are omitted in accordance with Item 601(b)(4)(iii)(A) of Regulation S-K. Copies of such agreements will be furnished to the Securities and Exchange Commission upon request.
10.1	*Supplemental Plan Abbott Laboratories Extended Disability Plan filed as an exhibit (pages 50-51) to the 1992 Abbott Laboratories Annual Report on Form 10-K.**
10.2	Abbott Laboratories 401(k) Supplemental Plan, as amended and restated effective January 1, 2008.**
10.3	Abbott Laboratories Supplemental Pension Plan, as amended and restated effective January 1, 2008.**
10.4	The 1986 Abbott Laboratories Management Incentive Plan, as amended and restated effective January 1, 2008.**
10.5	Abbott Laboratories Non-Employee Directors' Fee Plan, as amended and restated effective as of January 1, 2008.**

10-K Exhibit Table Item No.	
10.6	*Form of Non-Employee Director Stock Option Agreement under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 18, 2005, filed as Exhibit 10.7 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.7	1998 Abbott Laboratories Performance Incentive Plan, as amended effective January 1, 2008.**
10.8	Rules for the 1998 Abbott Laboratories Performance Incentive Plan, as amended and restated effective January 1, 2008.**
10.9	The Abbott Laboratories 1996 Incentive Stock Program, as amended and restated effective January 1, 2008.**
10.10	*Form of Employee Stock Option Agreement for a Non-Qualified Stock Option granted with an Incentive Stock Option under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.1 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.11	*Form of Employee Stock Option Agreement for a Non-Qualified Stock Option under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.2 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.12	*Form of Employee Stock Option Agreement for an Incentive Stock Option granted with a Non-Qualified Stock Option under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.3 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.13	*Form of Employee Stock Option Agreement for an Incentive Stock Option under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.4 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.14	*Form of Employee Stock Option Agreement for a Replacement Stock Option under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.5 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.15	*Form of Employee Restricted Stock Agreement under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.6 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.16	*Form of Employee Restricted Stock Unit Agreement under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.7 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.17	*Form of Non-Employee Director Stock Option Agreement under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.8 to the Abbott Laboratories Current Report on Form 8-K dated August 20, 2004.**
10.18	*Form of Non-Employee Director Restricted Stock Unit Agreement under Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.2 to the Abbott Laboratories Current

Report on Form 8-K dated December 10, 2004.**

10-K Exhibit Table Item No.	
10.19	*Form of Employee Stock Option Agreement for a Non-Qualified Stock Option granted with an Incentive Stock Option under the Abbott Laboratories 1996 Incentive Stock Program on or after February 18, 2005, filed as Exhibit 10.1 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.20	*Form of Employee Stock Option Agreement for a new Non-Qualified Stock Option under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 18, 2005, filed as Exhibit 10.2 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.21	*Form of Employee Stock Option Agreement for an Incentive Stock Option granted with a Non-Qualified Stock Option under the Abbott Laboratories 1996 Incentive Stock Program on or after February 18, 2005, filed as Exhibit 10.3 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.22	*Form of Employee Stock Option Agreement for an Incentive Stock Option under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 18, 2005, filed as Exhibit 10.4 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.23	*Form of Employee Restricted Stock Agreement under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.5 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.24	*Form of Employee Restricted Stock Unit Agreement under the Abbott Laboratories 1996 Incentive Stock Program, filed as Exhibit 10.6 to the Abbott Laboratories Current Report on Form 8-K dated February 18, 2005.**
10.25	*Form of Performance Restricted Stock Agreement for an award of performance restricted stock under Section 10 of the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 17, 2006, filed as Exhibit 10.1 to the Abbott Laboratories Current Report on Form 8-K dated February 16, 2006.**
10.26	*Form of Performance Restricted Stock Agreement for an award of performance restricted stock under Section 11 of the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 17, 2006, filed as Exhibit 10.2 to the Abbott Laboratories Current Report on Form 8-K dated February 16, 2006.**
10.27	*Form of Performance Restricted Stock Unit Agreement for an award of performance restricted stock units under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 17, 2006, filed as Exhibit 10.3 to the Abbott Laboratories Current Report on Form 8-K dated February 16, 2006.**
10.28	*Form of Non-Qualified Stock Option Agreement for an award of non-qualified stock options under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 17, 2006, filed as Exhibit 10.4 to the Abbott Laboratories Current Report on Form 8-K dated

February 16, 2006.**

10.29 *Form of Restricted Stock Unit Agreement for an award of restricted stock units under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 17, 2006, filed as Exhibit 10.5 to the Abbott Laboratories Current Report on Form 8-K dated February 16, 2006.**

10-K Exhibit Table Item No.

10.30 *Form of Performance Restricted Stock Agreement for an award of performance restricted stock under Section 10 of the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 16, 2007, filed as Exhibit 10.49 to the 2006 Abbott Laboratories Report on Form 10-K.**

10.31 *Form of Performance Restricted Stock Agreement for an award of performance restricted stock under Section 11 of the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 16, 2007, filed as Exhibit 10.50 to the 2006 Abbott Laboratories Report on Form 10-K.**

10.32 *Form of Restricted Stock Unit Agreement for an award of restricted stock units under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 16, 2007, filed as Exhibit 10.52 to the 2006 Abbott Laboratories Report on Form 10-K.**

10.33 *Form of Performance Restricted Stock Unit Agreement for an award of performance restricted stock units under the Abbott Laboratories 1996 Incentive Stock Program granted on or after February 16, 2007, filed as Exhibit 10.57 to the 2006 Abbott Laboratories Report on Form 10-K.**

10.34 Form of Agreement Regarding Change in Control by and between Abbott Laboratories and its named executive officers (other than Messrs. White and Freyman) identified in Abbott's Proxy Statement for the 2008 Annual Meeting of Shareholders.**

10.35 Base Salary of Named Executive Officers.**

10.36 *Transaction Agreement between Boston Scientific Corporation and Abbott Laboratories, dated as of January 8, 2006, filed as Exhibit 10.28 to the 2005 Abbott Laboratories Annual Report on Form 10-K.

10.37 *Amendment No. 1 to Transaction Agreement, dated as of January 16, 2006, between Boston Scientific Corporation and Abbott Laboratories, filed as Exhibit 10.29 to the 2005 Abbott Laboratories Annual Report on Form 10-K.

10.38 *Amendment No. 2 to Transaction Agreement, dated as of January 16, 2006, between Boston Scientific Corporation and Abbott Laboratories, filed as Exhibit 10.30 to the 2005 Abbott Laboratories Annual Report on Form 10-K.

10.39 *Amendment No. 3 to Transaction Agreement, dated as of February 22, 2006, between Boston Scientific Corporation and Abbott Laboratories, filed as Exhibit 10.1 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended March 31, 2006.

10.40 *Amendment No. 4 to Transaction Agreement, dated as of April 5, 2006, between Boston Scientific Corporation and Abbott Laboratories, filed as Exhibit 10.2 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended March 31, 2006.

10.41 *Purchase Agreement, dated as of April 21, 2006, between Guidant Corporation and Abbott Laboratories, filed as Exhibit 10.1 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.

10.42 *Amendment to Purchase Agreement, dated as of April 21, 2006, between Guidant Corporation and Abbott Laboratories, filed as Exhibit 10.2 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.

10-K Exhibit Table Item No.	
10.43	*Promissory Note, dated April 21, 2006, from BSC International Holding Ltd., filed as Exhibit 10.3 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.
10.44	*Subscription and Stockholder Agreement, dated as of April 21, 2006, between Boston Scientific Corporation and Abbott Laboratories, filed as Exhibit 10.4 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.
10.45	*Amendment to Subscription and Stockholder Agreement, dated as of April 21, 2006, between Boston Scientific Corporation and Abbott Laboratories, filed as Exhibit 10.5 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.
10.46	*Form of Time Sharing Agreement between Abbott Laboratories, Inc. and M.D. White and T.C. Freyman, filed as Exhibit 10.6 to the Abbott Laboratories Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.**
10.47	*Support Agreement, dated as of January 11, 2009, by and among ValueAct, Abbott and the Purchaser, filed as Exhibit 99.1 to the Abbott Laboratories Current Report on Form 8-K dated January 11, 2009.
10.48	*Support Agreement, dated as of January 11, 2009, by and among James V. Mazzo, Abbott and the Purchaser, filed as Exhibit 99.2 to the Abbott Laboratories Current Report on Form 8-K dated January 11, 2009.
12	Computation of Ratio of Earnings to Fixed Charges.
21	Subsidiaries of Abbott Laboratories.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of Independent Registered Public Accounting Firm.
31.1	Certification of Chief Executive Officer Required by Rule 13a-14(a) (17 CFR 240.13a-14(a)).

31.2 Certification of Chief Financial Officer Required by Rule 13a-14(a) (17 CFR 240.13a-14(a)).

32.1 Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

32.2 Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

The 2009 Abbott Laboratories Proxy Statement will be filed with the Securities and Exchange Commission under separate cover on or about March 13, 2009.

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* Incorporated herein by reference. Commission file number 1-2189.

** Denotes management contract or compensatory plan or arrangement required to be filed as an exhibit hereto.

Abbott will furnish copies of any of the above exhibits to a shareholder upon written request to the Corporate Secretary, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, Illinois 60064-6400.

QuickLinks

EXHIBIT INDEX ABBOTT LABORATORIES ANNUAL REPORT FORM 10-K 2008

A3108-3122

REDACTED

BERNSTEIN RESEARCH CALL
MEDICAL DEVICES

FOR FAX PROBLEMS ONLY: 212-756-4263

AUGUST 16, 2001

What are Drug-Eluting Stents Worth?: A $1-2 K Price Premium.

Bruce M. Nudell 212-756-4634 nudellbm@bernstein.com

	SCB	8/15/01	YTD	EPS			P/E		
Stock	Rating	Price	Perf.	2000A	2001E	2002E	2001E	2002E	Yield
GDT	O	$30.98	-42.6%	$1.58	$1.65	$1.90	18.8x	16.3x	0.0%
SPX		$1,178.09	-10.8%	$56.25	$49.75	$56.70	23.7x	20.8x	1.3%

O – Outperform, M – Market-Perform, U – Underperform

- **The favorable Ravel trial results unofficially reported yesterday appear consistent with the price premium that we've assigned to drug-eluting stents in 2003. We're assuming that reimbursement premiums should be offset by reduced repeat revascularization costs.**

- **We're maintaining our 2 X price premium ($1,160 in 2003), but acknowledge that upside – to as much as a $1,900 premium – could be defensible to large payers.**

Investment Conclusion:

The Ravel results unofficially reported yesterday are in-line with the pricing assumptions embedded in our models ($1,160 price premium in 2003). Establishment of at least a $1 K price premium is extremely important to the GDT story, as drug-eluting stents account for 17% of the modeled 2000-2005 revenue growth (entry late 2003). A U.S. price premium of $1.9 K versus the $1.1 K that we've modeled in 2004, would contribute 16 cents in incremental earnings off a 2004 base of $2.66 (assuming 24% US stent share).

Yesterday, the popular press unofficially reported results from the Ravel trial. This trial is designed to demonstrate the efficacy of JNJ's Rapamycin-eluting stent. Given the excitement garnered by the seemingly very positive results, and because we now seem to have some insight into the magnitude of the clinical benefit, we thought it opportune to cross check our assumptions regarding the price premium that drug eluting stents may garner.

We've assumed a 2-X price premium relative to conventional stents in our models. Bare metal stents are currently priced at about $1,250 in the United States, and in 2003, we're assuming an ASP of $2,320 for drug eluting versus $1,160 for conventional stents. We arrived at the price premium through calculation of the offsetting benefit accruing to payers because of reduced repeat revascularization costs (repeat angioplasty (PTCA), bypass surgery (CABG)). Our basic assumption was that reimbursement increases for drug eluting stents should be budget neutral to large payers such as Medicare.

Exhibit 1 demonstrates our methodology for calculating Medicare's break-even point with two sets of assumptions regarding the clinical benefit of Rapamycin-eluting stents. Yesterday's press reports spoke of a 15-25% restenosis rate in controls versus a 2% rate in the therapy arm of the trial. Restenosis rates, which are angiographic (fluoroscopic) assessments of the percent of treated vessels that have maximum blockages of a least 50%, generally overestimate the rate of clinically driven, repeat revascularization (repeat PTCA, CABG), by a factor of two. By this logic, the reported restenosis rates would equate to actual repeat revascularization rates of approximately 10% in controls versus 1% in patients who receive drug eluting stents. We took these 10% and 1% repeat revascularization rates as a starting point for our analysis (exhibit 1, example 1).

Exhibit 1, example 1 shows that at these revascularization rates, Medicare breaks even if it pays an $1,074 premium for drug eluting stents – very close to the $1,160 that is embedded in our 2003 model. Exhibit 1 uses HCFA 1999 MedPar data (adjusted for inflation) to assign a cost for CABG procedures, and uses our weighted average estimates of the reimbursement for the new DRGs 516, 517 & 518 to assign a cost for repeat PTCA.

As is true in most stent trials, patients in Ravel were selected on the basis of lesion complexity (which determines restenosis risk) with the highest risk lesions being excluded. The Dynamic Registry, which tracks changes in angioplasty / stenting practice patterns in the

US, reported that in 1998 the rate of repeat revascularization for patients receiving treatment for de Novo (first time) lesions was 18%. 7% of patients received follow-up CABG and 11% received repeat PTCA to clear subsequent blockages. (The repeat revascularization rates reported in the Dynamic Registry, may represent an overestimate of current rates, because the use of stents was not quite as widespread as it is today.)

Accordingly, in exhibit 1, example 2, we undertook another break-even analysis that presumes an 18% incidence of repeat revascularization amongst the broad spectrum of patients receiving conventional stents, with a significantly reduced rate of 5% amongst patients receiving drug eluting stents. In this example, Medicare break-even is achieved at a drug-eluting price premium of $1,551 – significantly higher than the $1,160 that we modeled in 2003. In this example, we presumed that drug eluting stents are significantly less effective in more difficult lesions than they are in simpler cases (exhibit 1, example 1) and implicitly assumed that some of the repeat procedures stem from lesions not treated at the outset. In exhibit 2, which tabulates our sensitivity analysis, we show that Medicare could pay a $1,909 price premium, while maintaining budget neutrality, if revascularization rates could be lowered from 18% to 2%.

Conclusion:

The magnitude of the clinical effect unofficially reported yesterday is consistent with the price premiums for drug eluting stents that we built into our 2003 US model. If similarly low revascularization rates can be obtained in the broader population – which includes more complex de-novo and re-stenotic lesions – significant upside to the $1,160 price premium that we modeled can legitimately be sought. On the other hand, we need to wait for the official unveiling of the trial results to understand the true rates of repeat revascularization seen in both arms of the trial. If the revascularization rate for the control arm was unexpectedly low – 5% vs 1% in the drug-eluting stent arm, for instance, a price premium of only $477 could be rigorously justified (exhibit 2, scenario 0).

Exhibit 1

Methodology for Calculating Medicare Breakeven Price Point

Example 1: Breakeven Calculation for de Novo Lesions: Scenario I

	Conventional Stent	Breakeven Scenario
Total PTCA Cases	805,000	965,000
Medicare Cases	380,770	380,770
Percentage Stents	90%	90%
# Stents Used	479,770	479,770
Incremental Cost Per Stent ($)	0	1,074
Total Incremental Costs ($MM)	0	$16
% Revascularization	10%	1%
% CABG	4%	0.4%
CABG Costs ($MM)	334	$3
% Repeat PTCA	6%	1%
Repeat PTCA Costs ($MM)	239	24
Total Revascularization Costs in Patients Receiving Stents ($MM)	572	57
Net Benefit ($MM)		0

Example 2: Breakeven Calculation Scenario V for de Novo Lesions

	Conventional Stent	Breakeven Scenario
Total PTCA Cases	805,000	965,000
Medicare Cases	380,770	380,770
Percentage Stents	90%	90%
# Stents Used	479,770	479,770
Incremental Cost Per Stent ($)	0	1,551
Total Incremental Costs ($MM)	0	744
% Revascularization	18%	5%
% CABG	7%	1.9%
CABG Costs ($MM)	601	167
% Repeat PTCA	11%	3%
Repeat PTCA Costs ($MM)	430	119
Total Revascularization Costs in Patients Receiving Stents ($MM)	1030	286
Net Benefit ($MM)		0

Assumptions	
PTCA Cases paid by Medicare	42%
Avg # of Stents per PTCA Case	1.4
1-Yr Revascularization following treatment of de Novo lesions suggested by DYNAMIC Registry	18%
% CABG of cases	7%
% Repeat PTCA of cases	11%
% CABG of revascularization	39%
% Repeat PTCA of revascularization	61%
CABG Costs Per Case based on average weighted MEDPAR Payments for DRGs ($08,107,109) (inflation-adjusted 1999 MEDPAR data)	$25,044
PTCA Costs Per Case based on average weighted MEDPAR Payments for DRGs ($16,517,518) (Federal Register 2001)	$11,400

Source: Bernstein estimates.

Exhibit 2

Medicare Breakeven Analysis: Price Premium versus Revascularization Benefit

Scenario	Conventional Stent	Drug-Eluting Stent	Stent Premium Breakeven Point ($)
0	5%	1%	477
I	10%	1%	1,074
II	12%	2%	1,193
III	14%	3%	1,313
IV	16%	4%	1,432
V	18%	5%	1,551
VI	18%	4%	1,671
VII	18%	3%	1,790
VIII	18%	2%	1,909

Source: Bernstein estimates.

A3132-3136

REDACTED

A3139-3265

REDACTED

Inter Partes Reexamination No. 95/001,096
Declaration of Campbell Rogers, M.D.
Exhibit 95
United States

Merrill Lynch

Comment

Medical Technology

31 July 2003

Daniel T. Lemaitre, CFA

Timothy J. Lee

Katherine A. Martinelli

Interventional Cardiology

Coated Stent Concerns Prompt Shift To Neutral Rating On JNJ

Reason for Report: Industry Update

Industry

Highlights:

- Drug eluting stents (DES) will result in a massive expansion of the coronary stent market from ~$2B to $7B+ over the next 3-4 years. Indeed, in the U.S. JNJ (A-2-7;$52) continues to sell every *Cypher* it can manufacture, and will up allocations to 70% of stent volume in the coming weeks. However, JNJ's position as "King of the Stent Hill" is vulnerable if Boston Scientific's (BSX;B-1-9;$63) data from its pivotal U.S. study (TAXUS IV), which will be released at TCT on September 15th, is competitive (i.e., a binary restenosis rate in the 10-12% range).
- Assuming the data is competitive, post TCT investor focus will shift to the approval process and timing. The FDA has two Circulatory System Device panels tentatively slated for Q4 (Oct. 23-24th and Dec. 11-12th). Issues such as the lack of data on overlapping stents, vessel wall thickening and drug pharmacokinetics/toxicology may result in a "lively" panel, but ultimately we expect FDA approval to materialize by the end of Q1:04.
- Intellectual property may in due course determine what happens in the coated stent fray, but the timing of patent battles between JNJ and Boston Scientific suggests it will be "data first."
- Stock volatility may increase as the noise level builds going into TCT and a prospective FDA panel. Our Buy rating on BSX is supported by a potential breakout in earnings power to $2.50-3.00 if *TAXUS* garners 50% of the U.S. market, which seems readily doable given early success in Europe. But BSX common may mark time near-term until the timing and issues surrounding U.S. approval gain granularity.
- We are shifting from a Buy to a Neutral rating on JNJ since its early lead in coated stents has been botched by manufacturing woes. Boston has quickly gained share in Europe and timing of JNJ's next generation coated stents, which could help blunt share erosion, is uncertain. While we do not believe there is much downside in our EPS estimates for JNJ, concerns regarding its stent franchise, atop slower growth prospects for several key pharmaceuticals (including *Procrit/Eprex* which account for 10% of corporate sales) will likely keep a lid on JNJ's P/E near term.
- In the interim, bare metal stent prices are getting increasingly competitive, which does not bode well for Guidant (GDT;B-2-7;$47). GDT dominates the U.S. bare metal stent market and CMS' decision to cut the reimbursement differential between bare metal and coated stents by 15-20% may put added pressure on cath lab budgets. Hence, we maintain our Neutral rating on GDT.

Refer to important disclosures starting on page 5.
Analyst Certification on page 4.

Merrill Lynch Global Securities Research & Economics Group
Global Fundamental Equity Research Department

RC#30221217

What Has Changed?

JNJ's Cypher Production Is Up

In the last few weeks, JNJ's stent production appears to be improving (we believe JNJ is shipping at a rate of about 14-17K/week, or $40-50MM assuming $2,900 per stent). Indeed, we have talked to several labs that have "**Cyphers on the shelf**" for the first time. JNJ has apparently received approval for an additional line and will shortly **increase its allocation to hospitals to the 70% vicinity**.

But JNJ's Overall "PR" Problems Continue

Despite higher *Cypher* production levels and the possibility of good news on the reimbursement front, JNJ is still fighting an uphill battle since many cardiologists are furious about the "botched" launch. And some centers have seen less than optimal results when forced to use inappropriately sized stents. As such, **the market seems primed to welcome a second vendor**. Speculation has been mounting that the drug coated stent market could be a replay of the first go-round in bare metal stents, where JNJ created the market and subsequently lost nearly its entire share position. While this scenario is possible, we note that **JNJ still has 6-9 months to "get it right"** before it is likely to face *TAXUS* in the U.S. Moreover, in the last go-round, second generation bare metal stents were clearly better than JNJ's *Palmaz Shatz Stent*. It remains to be seen if drug eluting stents from BSX and others can top *Cypher* on an efficacy basis. As such, all eyes and ears will be focused on Boston's TAXUS IV data, which will be released in about a month.

TCT: All TAXUS, All The Time

It appears that Boston Scientific will hold two sessions for the investment community at TCT. Investigators will apparently see the data on Monday morning September 15th. **The TAXUS IV study will be presented in a late breaking clinical study session around 2:00 p.m.** and BSX will subsequently host an analyst meeting to review results from 5:00-7:00 p.m. that evening. Subset data will be presented in subsequent sessions on September 16-17th. As such, **BSX will apparently host a second investor meeting on Wednesday evening** (probably from 6:00-8:00 p.m.) to review the clinical implications of subset data. This strategy suggests that some of the positioning for *TAXUS* vs. *Cypher* will focus on **patient subsets where the data may be more competitive**, such as diabetics (where some docs think the BSX coating makes a difference).

Other News At TCT?

While Boston's TAXUS IV data will be the highlight of TCT, **JNJ may opt to host a meeting to present "real-world" data from *Cypher* registries**, highlight recent production capacity improvements and review its drug eluting stent pipeline.

Medtronic will also present data from ENDEAVOR I, a 100-patient pilot study using a cobalt-chrome *Driver* stent coated with ABT-578. Since the company has already announced plans to start ENDEAVOR II, a pivotal European study, the pilot data should make for good reading.

Finally, **Guidant** will present the one-year follow-up on FUTURE I, a 42-patient study using a stainless steel stent with an erodable polymer coated with everolimus. However, it sounds like results from its larger FUTURE II study may not be available until November.

Handicapping TAXUS IV Still Great Sport

The general perception is that the TAXUS IV results will be competitive, but no better than, JNJ's SIRIUS results (i.e., binary restenosis of 8.9%). Recall that the "in-stent" restenosis rate in SIRIUS was just 3%. The residual 6 % points of restenosis reflected "peri-stent" restenosis that was tied to, among other things, inadequate stent coverage of all portions of the artery damaged by balloon angioplasty. Since the *TAXUS* delivery system is perceived by some docs to be better, the heavy-duty betting is that the TAXUS IV data will not look better on an "in-stent" basis, but will be competitive in total since there may be less "peri-stent" restenosis. In sum, we **expect TAXUS IV will be competitive, with a binary restenosis rate in the 10-12% range**. BSX should be able to translate "competitive" results into a 50% market share position on a run-rate basis exiting '04. There is the possibility that the results could be better than we expect, with a single-digit number restenosis rate, which could lead to an even larger share position for BSX, but that is not how we would handicap the outcome based on the results from European studies. Assuming the data is competitive, investor focus is likely to switch immediately post TCT to the approval process and timing.

Two Cardiology Panel Dates Tentatively Set

The FDA has **two Circulatory System Device panels tentatively slated for Q4** (Oct. 23-24th and Dec. 11-12th). Several clinicians that will present for BSX have been asked to hold both dates, but we suspect the company has not yet been notified that it will be invited to either panel. Inevitably, the panel will be cantankerous (we have never attended a panel that has not been spirited). We suspect issues such as **a lack of data on over-lapping stents** in TAXUS IV will emerge (although BSX will have TAXUS VI data from Europe to address these concerns). In addition, the panel may address the issue of **vessel wall-thickening,** which appears to be dose-related. Finally, the drug side of **the FDA clearly hopped onboard the drug eluting stent review process last summer**. JNJ was forced to rely heavily on its partner Wyeth to address pharmacokinetic and toxicology issues. BSX, on the other hand, is "on its own" since Bristol Myers, which did the basic work on paclitaxel, has no vested interest in lending a hand to Boston. **All of this suggests to us that the review process may take a tad longer** than expected, thus our models assume FDA approval towards the end of Q1:04 rather than late '03.

(Continued)

TAXUS VI Data By H1:04

TAXUS VI is a prospective, randomized study evaluating the use of a moderate release (MR) formulation of *TAXUS* versus the bare metal *Express 2* in patients with long lesions. The primary end point is 9-month Target Vessel Revascularization (TVR). A total of 448 patients were enrolled in the study, which completed recruitment in December 2002. **Since the last patients will not hit the 9-month follow-up until September**, the study will not be presented at TCT. However, there is a possibility that the data could be available by the American College of Cardiology in March 2004 or PCR in May 2004.

The feedback from TAXUS VI investigators continues to be highly positive ("phenomenal" per one doc), suggesting that the *TAXUS* will indeed emerge as a very competitive stent. **Since 25-30% of patients in TAXUS VI had overlapping stents, BSX may supplement its submission for U.S. approval with this data.** We note that the 9-month follow-up is consistent with FDA guidelines, suggesting BSX may view the TAXUS VI results as a "safety-net" should the agency ask for additional data.

The Reality Is That REALITY Is Really Late

Recall that JNJ is sponsoring a study that will randomize ~1,000 patients to either *Cypher* or *TAXUS*. But the start of the trial **has been delayed due to JNJ's inability to supply product.** Since the study will not start enrolling patients until August and the follow-up is 8 months, the **results will not be available until TCT 2004**, which may simply be too late to blunt BSX inroads with the *TAXUS*. Given the late start and continued concerns amongst investigators that the study is under-powered, **we would not be surprised if JNJ ultimately killed the study**.

Bare Metal Pricing At Risk?

JNJ is clearly in the "damage control" mode. As such, the company is going out of its way to provide stents on consignment (hospital pays only after using the product). **Apparently in an attempt to further assuage customers and perhaps further pressure competitors, JNJ also appears to be cutting prices in bare metal stents** (we have heard numbers as low as $800 for the *Bx Velocity*). Since bare metal competitors will be fighting to retain share in a rapidly shrinking market, JNJ's pricing moves could lead others to follow suit. **This may be particularly damaging to Guidant**, which dominates the bare metal stent market. Guidant is hoping to fetch a premium price for its newly released cobalt-chrome *Vision*. However, slippage in bare metal stent pricing may mitigate GDT's ability to enjoy a meaningful uptick in pricing from the *Vision*.

CMS Tweaks DES Reimbursement Differential

Final **DRG updates were published on July 31st** that set CMS reimbursement rates for the fiscal year that starting in October 2003. Reimbursement for the use of drug eluting stents with (DRG 527) or without (DRG 526) an acute myocardial infarct (AMI) was originally set at a premium of ~$1,800 based on the assumption that docs would use 1.4 stents per procedure and pricing that was on par with Europe.

Table 1: CMS Tweaks DES Differential

	FY03	FY04	% Change
Stenting Procedure:			
With Acute Myocardial Infarct			
DRG 516 (bare metal stent)	$12,704	$13,026	+3%
DRG 526 (drug eluting stent)	14,522	14,468	(0%)
Differential	$1,818	$1,442	(21%)
Without Acute Myocardial Infarct			
DRG 517 (bare metal stent)	$10,150	$10,454	+3%
DGR 527 (drug eluting stent)	11,805	11,851	+0%
Differential	$1,655	$1,397	(16%)

Source: CMS and Merrill Lynch

Subsequently, actual charge data was collected and submitted for CMS' consideration. Since pricing in the U.S. is about $1,000 higher than Europe and stents per case has probably nudged higher (>1.5 in the U.S.), there was some hope that **CMS would bump-up reimbursement for DRGs 526 and 527**, which would help ameliorate some of the grousing about JNJ's pricing. However in the final CMS rule, reimbursement rates in FY04 will be flattish for procedures using drug eluting stents (DES). Since the DRGs for doing a procedure with bare metal stents increased 3%, **the differential payment narrowed by 15-20%.** Thus hospitals will be paid about $1,400 more per DES procedure. As noted below, hospitals will have to absorb additional costs of about $1,500-2,000 per procedure, which is likely to keep the pressure on vendors to lower price. At the end of the day, drug eluting stents are so compelling due to reduced rates of re-intervention that the U.S. market will likely convert to DES by over 80% as supply constraints are resolved.

Table 2: Bare Vs. Drug Eluting Stent Costs

Bare Metal Stent	
Stents Per Procedure	1.4
Average Selling Price	$ 1,000
Total Stent Cost	$ 1,400
Drug Eluting Stent	
Stents Per Procedure	1.6
Average Selling Price	$ 2,900
Total Stent Cost	$ 4,640
Incremental Cost	$ 3,240
Incremental Reimbursement	1,400
Hospital "Hit" Per Case	$ 1,840

Source: Merrill Lynch

Legal Wrangling Still An Imponderable

Recall that **JNJ and BSX are each seeking preliminary injunctive** relief in a patent battle in Judge Sue Robinson's court (U.S. District Court for the District of Delaware). **Final post hearing briefs are due on September 12th.** Judge Robinson's track record would not suggest that an immediate decision will be forthcoming, thus it is **highly likely that the TAXUS IV data will be released before we get wind of her decision.** Moreover, even if Judge Robinson grants a PI, **the losing side will likely immediately appeal.** As such, we expect the drug eluting stent competition to be fought initially in the marketplace, not the courtroom.

Cypher Select Timing Still Uncertain

JNJ's aspirations to avoid a replay of the *Palmaz Shatz Stent* debacle hinge on the timely introduction of next generation drug eluting stents that "move the goal posts further down the field." On this score, the company plans to introduce *Cypher Select*, which features a new stainless steel stent platform. Recall that the restenosis rates in the control arm of SIRIUS and E-SIRIUS were 35-40%, which some clinicians attribute to the "inferior" *BX Velocity* stent platform. Whether or not this perception is accurate, JNJ hopes to overcome lingering concerns about its stent platform with *Cypher Select*. The product has CE Mark and will be launched in Europe in the fall. **The *Select* will also allow JNJ to relaunch in the Netherlands where Medinol was granted an injunction against the *BX Velocity*.**

In the U.S., it is not clear if the FDA will require JNJ to perform a *Select* clinical trial although in our opinion, some type of registry is highly likely. Thus, **the *Cypher Select* may not be launched in the U.S. until H2:04,** which will likely be post the *TAXUS* launch unless BSX is waylaid by the FDA review process.

JNJ is still hoping to have the first implants of *Steeplechaser* (a cobalt chrome stent) coated with Sirolimus by the end of the year. Implants have started in Brazil with bare metal versions of the product.

Early Read On TAXUS vs. Cypher From Europe Bodes Well For BSX

BSX has made significant inroads in Europe and it appears that the **Medinol injunction against JNJ in the Netherlands was more disruptive** than expected since JNJ ships product throughout Europe from this facility. **As such, we suspect the European market share updates at TCT will suggest that BSX has further secured a leading share in Europe,** which many may view as a harbinger of things to come in the U.S.

French reimbursement may help JNJ stymie share loss near term. **It appears that reimbursement will formally be announced next week.** France could expand the European DES market (which is currently $60MM or so per quarter) by $20-25MM/quarter, which should help JNJ's aggregate share to rebound.

While BSX continues to suggest that it is winning in Europe on features, not price, clinicians are reporting pricing on the *TAXUS* that is $300-500 lower than *Cypher*. Ultimately, we expect JNJ to narrow this gap since the company will probably not tolerate share loss on the basis of price.

One final note from Europe, the TAXUS II study (BSX's pivotal European study) will be published in *Circulation* (since it was apparently rebuffed by both the *New England Journal of Medicine* and *Lancet*).

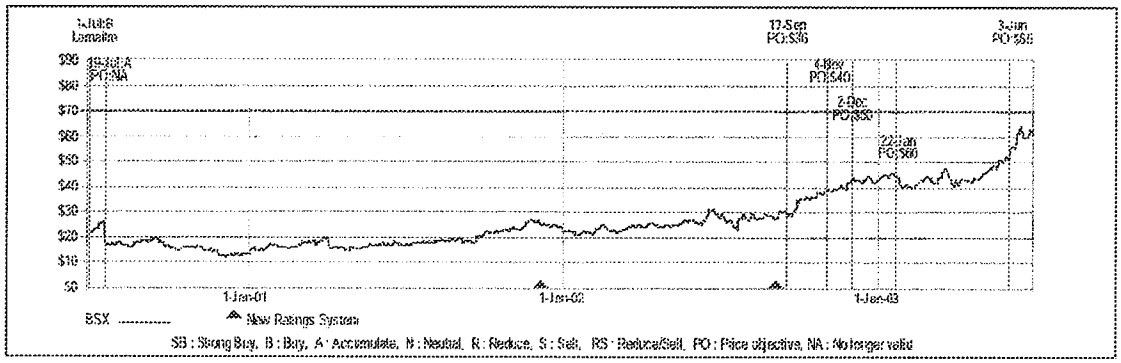
Boston Scientific 12-Month Price Objective $65

If *TAXUS* can garner 50% of the U.S. market exiting '04, **stent sales could surge by more than $1B in '04E and earning power could ramp to the $2.75-3.00 vicinity.** Our 12-month price objective of $65 is based on BSX trading at 22x our C04 EPS estimate of $2.90. **Risks** include: 1) disappointing results from TAXUS IV, 2) delays in the U.S. approval of *TAXUS*, 3) more competitive pricing in the U.S. coated stent market and 4) intellectual property issues surround stents.

Analyst Certification

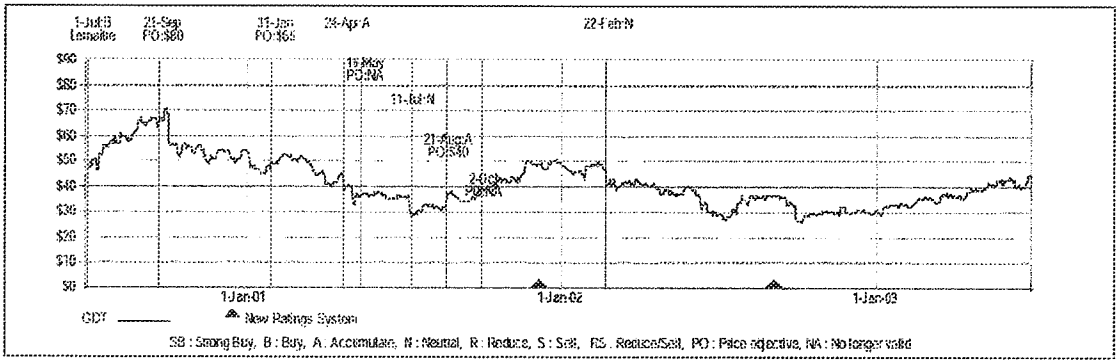
I, Daniel T. Lemaitre, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

BSX Price Chart



Prior to 8 Dec. 2001, the Investment Opinion System included: Buy, Accumulate, Neutral, Reduce and Sell. From 8 Dec. 2001 to 6 Sep. 2002, the Investment Opinion System included: Strong Buy, Buy, Neutral, and Reduce/Sell. On 8 Dec. 2001 Buy ratings became Strong Buy, Accumulate became Buy, and Reduce and Sell became Reduce/Sell. On 6 Sep. 2002, Strong Buy and Buy ratings became Buy, and Reduce/Sell became Sell. Any exceptions to these rating revisions are reflected in the chart. All price objectives for Neutral and Sell rated securities established before 6 Sep. 2002 were eliminated as of that date. The current Investment Opinion System is contained at the end of the report. Dark Grey shading indicates security is restricted with the opinion suspended. Light Grey shading indicates security is under review with the opinion withdrawn.

GDT Price Chart



Prior to 8 Dec. 2001, the Investment Opinion System included: Buy, Accumulate, Neutral, Reduce and Sell. From 8 Dec. 2001 to 6 Sep. 2002, the Investment Opinion System included: Strong Buy, Buy, Neutral, and Reduce/Sell. On 8 Dec. 2001 Buy ratings became Strong Buy, Accumulate became Buy, and Reduce and Sell became Reduce/Sell. On 6 Sep. 2002, Strong Buy and Buy ratings became Buy, and Reduce/Sell became Sell. Any exceptions to these rating revisions are reflected in the chart. All price objectives for Neutral and Sell rated securities established before 6 Sep. 2002 were eliminated as of that date. The current Investment Opinion System is contained at the end of the report. Dark Grey shading indicates security is restricted with the opinion suspended. Light Grey shading indicates security is under review with the opinion withdrawn.

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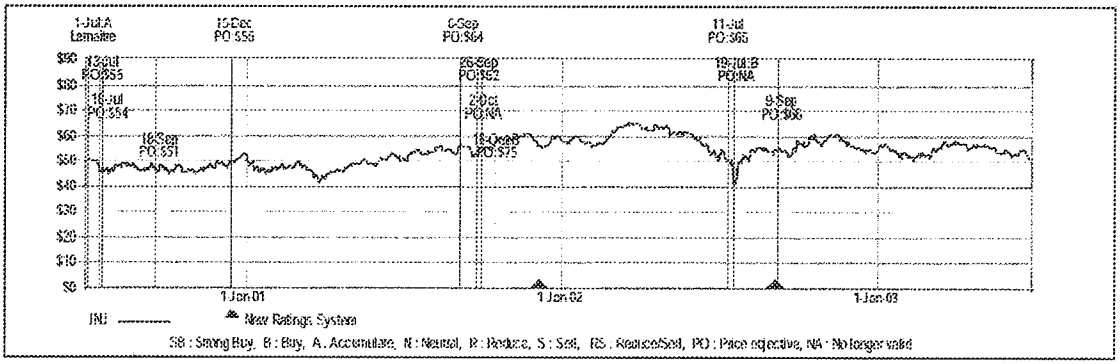
JNJ Price Chart



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Investment Rating Distribution: Health Care Group (as of 30 June 2003)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	85	46.96%	Buy	29	34.12%
Neutral	84	46.41%	Neutral	14	16.67%
Sell	12	6.63%	Sell	1	8.33%

Investment Rating Distribution: Global Group (as of 30 June 2003)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	884	38.20%	Buy	314	35.52%
Neutral	1229	53.11%	Neutral	335	27.26%
Sell	201	8.69%	Sell	42	20.90%

* Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

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GICS SECTOR	HEALTH CARE
US Strategist Weight	14.8%
S&P 500 Weight	12.8%

Industry Overview

February 24, 2005

Notes from our 2005 Interventional Cardiology Conference

- **ACC could be an inflection point for J&J's Cypher DES program**
  At the end of 2004, there were some smaller trials suggesting that Cypher has superior **efficacy** compared to Boston Scientific's TAXUS. This could be further reinforced by the results of the full clinical data set for the Cordoba/Las Palmas, REALITY and SIRTAX trials. If the comparative **safety** profile also trends in a similar direction, Boston Scientific could be dealt a knock-out blow.
- **Longer-term excitement of non-stainless steel stent platforms**
  Clinicians were upbeat about the prospects for Conor Medsystems' COSTAR program, Guidant's SPIRIT program and Abbott's ZoMaxx program. With respect to Medtronic, little new was uncovered. Most agreed that this product should probably play a niche role. This assumes that ENDEAVOR II late loss remains high.
- **Reimbursement problematic for carotids, but AAA should take off**
  Due to a restrictive reimbursement environment, our expectations regarding carotid stenting may prove optimistic. On the flipside, growth in the AAA stent graft market could accelerate, especially if the SAAAVE bill is approved by Congress.
- **Need to wait until the end of the decade for the next big thing**
  Areas of excitement include (1) a stent-like ICD that can be implanted by interventional cardiologists, (2) percutaneous valve repair/replacement, (3) nano sensors to monitor the performance of implanted devices, and (4) new CHF stimulation devices that are not currently addressed with existing ICD-CRT therapy.
- **Maintaining Ratings on Stocks**
  We are maintaining our Equal-weight ratings on BSX and STJ and Overweight ratings on MDT and ABT. As for GDT and JNJ, these two names are unrated. In the case of MDT and ABT, we think expectations are low regarding these two companies' prospects in the interventional cardiology market.
- **Industry view: Attractive**
  Fundamentals remain strong, and growth prospects look relatively robust for stocks in our coverage universe. With limited growth opportunities in the equity market and an increasingly uncertain outlook for large cap pharmaceuticals stocks, we view the med tech space as a reasonable place for investors to find growth.

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Notes from our 2005 Interventional Cardiology Conference

Morgan Stanley & Co. Incorporated ("Morgan Stanley") is currently acting as financial advisor to Guidant Corporation ("Guidant") with respect to its announced proposed acquisition by Johnson & Johnson ("Johnson & Johnson").

The proposed transaction is subject to, among other things, the consent of Guidant shareholders. This report and the information provided herein is not intended to (i) provide voting advice, (ii) serve as an endorsement of the proposed transaction, or (iii) result in the procurement, withholding or revocation of a proxy or any other action by a security holder.

Please refer to the notes at the end of this report.

Summary and Investment Conclusion

On February 24, 2005, we hosted our eighth annual half-day conference on interventional cardiology. As we pointed out in our recently published Investors' Guide to Interventional Cardiology, the market for the drug eluting stents (DES) is maturing. This in turn is leading to a slowdown in the $8.75 billion interventional cardiology market. For this reason, the focus of the conference was on two topics: (1) the competitive dynamics of the DES market and (2) future growth opportunities in the interventional cardiology market that are not DES based. Below are some of the thoughts from our conference.

ACC: A possible inflection point for J&J (Cypher)

Clinicians on the interventional cardiology panel appeared very excited about the upcoming American College of Cardiology (ACC). While not explicitly stated, it appears that this meeting could prove to be an inflection point for J&J. Specifically, at the end of 2004, there were some smaller trials (ISAR DESIRE and partial data for Cordoba/Las Palmas) that suggested the efficacy of Cypher in more complicated lesions may be superior to Boston Scientific's TAXUS drug eluting stent. This could be further reinforced by the results of the full clinical data set for Cordoba/Las Palmas, REALITY and SIRTAX. As such, Boston Scientific could be at risk.

Even more important to physicians will be the comparative safety of these devices. We expect some concerns over safety to be raised from the TAXUS V trial. If in fact the comparative safety profile in REALITY and SIRTAX are also trending in Cypher's favor, Boston Scientific could be dealt a knock-out blow. Stay Tuned.

Excitement over SPIRIT, COSTAR and ZoMaxx

With respect to new stent platforms, this group of clinicians were certainly upbeat about the prospects for new stent DES platforms, including Conor Medsystems' COSTAR, Guidant's SPIRIT program and Abbott's ZoMaxx program. With respect to Guidant and its development timelines, we heard some good news and bad news. First, the bad news -- the company's U.S. pivotal trial, SPIRIT III will probably not start before the end of the first quarter. That said, beginning of enrollment should be soon thereafter. On a more positive note, this trial will also be used to gain Japanese regulatory approval. As such, we think this confirms our aggressive assumption for a 2007 Japanese launch.

With respect to Medtronic, minimal new information was uncovered at the conference. This group of clinicians certainly believes that late loss is important. For this reason, they believe that if late loss proved to be high in the ENDEAVOR II, the product would serve a "niche" role as it deliverability is superior. This is pretty consistent with our expectations. That said, given the low expectations for this trial, we think there may be room for some upside surprise. **Finally, despite comments made by some of our competitors, ENDEAVOR II data will be complete with normal number of patients returning for follow up.**

Another major focus of our conference was in the area of non-coronary procedures. These include the repair of abdominal aortic aneurysms (AAA) and carotid artery stenting (CAS).

AAA Market: Poised to accelerate

The abdominal aortic aneurysm (AAA) stent graft market has grown to $330 million in 2004. We think this market could grow in the low double-digits, while Dr. Ohki may be more optimistic. The bad news is that Medtronic is losing share in this market to new upstarts, such as privately held W.L. Gore and Cook. The good news is that the market will reaccelerate with the anticipated passing of the

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SAAAVE (Screen Abdominal Aortic Aneurysms Very Efficiently) bill in Congress. This bill will provide funding of AAA screening for patients deemed to be at high risk (for example, elderly patients who smoke) for AAA. Additionally, FDA approval for endografts to treat thoracic aneurysms is also anticipated to enhance market growth.

Carotids: Medicare funding is problematic

Regarding carotid stents, we expect that the market is about to "take off" with the recently gained FDA approval for the first carotid stent system (Guidant's Acculink w/ Accunet). Unfortunately, our panel agreed that we might be too optimistic as CMS (Centers for Medicare and Medicaid Services) has limited reimbursement to severely symptomatic patients. We expect the competitive dynamics will only become more intense from here on out as Boston Scientific and JNJ are expected to gain FDA approval in 2Q05. Both Abbott and Medtronic expect to gain FDA approval later in the year. Finally, ev3 expects to gain FDA approval for its carotid stent in 2006.

In 2004, we estimate the worldwide carotid market was around $60 million. By 2008, we expect this market to reach the $580-$600 million range. This assumes that CMS will be more forgiving with respect to reimbursement.

The next big thing: we need to wait!

We also had a peek into the future from Dr. Marty Leon from Columbia University. His task was to present new technologies that are expected to impact this market in the future. The good news is that there are many exciting unmet medical needs that can be addressed with device therapy. The bad news is that none of these technologies will likely be material until 2009, at the earliest. As such, the near-term future of the interventional cardiology market will depend on drug eluting stents. Among the most exciting new technologies that were presented by Dr. Leon were: (1) downsized, stent-like ICDs (Interventional Rhythm Management)delivered by interventional cardiologists 2) percutaneous valve repair (Edwards and Viacor), 3) nano sensor technology (Remon Medical and CardioMEMS) and 4) new stimulation devices to treat heart failure (Impulse Dynamics).

Price Targets, Ratings and Risks

Abbott Laboratories (ABT, $46, Overweight). We maintain our Overweight rating on ABT shares. Our price target for ABT is $52, and is based on a 1.10–1.15 relative multiple to the S&P 500 on estimated 2006 earnings. We think that our relative multiple target is justified, considering Abbott's projected 11% long-term growth rate and 2.4% yield. These numbers compare with a projected normalized S&P 500 growth rate of 8% and a 1.6% yield.

Overall, we remain confident in Abbott's ability to increase earnings at an above-average rate (compared with other pharma companies). We also think that its pipeline, which includes 1) Humira for psoriasis and Crohn's disease, 2) Oral Zemplar for pre dialysis patients, 3) Simdax for heart failure, 4) Xinlay for prostate cancer, and 5) ABT 874 for Crohn's, is among the most robust in the pharmaceutical industry. As such, we are maintaining our Overweight rating on ABT. We think that as investors feel more comfort with the risks the company is facing regarding the financial impact of Synthroid, Tricor and Biaxin, the stock's multiple will continue to improve and investors should focus more on the company's pipeline.

We see a number of risks to ABT's reaching our price target. The first relates to political risks facing the pharmaceutical industry. Any major macro changes that affect pricing will definitely impact Abbott and its prospects, we believe. Abbott's TAP Pharmaceutical joint venture is one of these. Specifically, the generic approval for OTC Prilosec has caused growth of TAP's Prevacid to slow. We think that we have adequately captured this in our estimates. TAP is an important contributor to Abbott's earnings. Other risks to earnings, in our view, include the timing for generic competition Tricor and Biaxin. Finally, we see the company's FDA approval strategy for Xinlay as fairly risky. It is possible that approval could be delayed or denied. We do, however, see other earnings levers that could potentially make up for lost Xinlay sales.

Boston Scientific (BSX, $33, Equal-weight). Despite what appears to be an attractive valuation, we are maintaining our Equal-weight rating on Boston Scientific. We still see Boston Scientifics' DES franchise coming under competitive pressure in future years. The extent of that pressure might be clarified at the upcoming American College of Cardiology meeting. We think that at that meeting, enthusiasm for JNJ's Cypher will be renewed with the release of several trials that will be suggestive of superior efficacy for Cypher over BSX's TAXUS. Boston Scientific might come under further attack if the fears over the safety data for TAXUS V materialize as well. Longer term, we still think that Abbott, Medtronic and the Guidant

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(as either a standalone or part of JNJ) will all be formidable competitors. As such, we find it hard to make a case for the stock to appreciate in the coming months.

Guidant (GDT, $73, NR). *Due to the announcement of the J&J/GDT transaction, we currently do not have a rating or price target on Guidant.*

Johnson & Johnson (JNJ, $66, NR). *Due to the announcement of the J&J/GDT transaction, we currently do not have a rating or price target on J&J.*

Medtronic (MDT, $53, Overweight). Our price target of $60 is based on a 1.55-1.60 relative multiple to the S&P 500 on our projected calendar 2006 earnings. This price target is a premium to the nine-year average relative multiple of the stock of 1.43. Given the condition of the market today in which the market is "growth starved", we suspect that the market will pay premiums for companies with substantial organic growth. While our $60 price target is a premium to the stock's historical **relative** multiple, a 25x multiple on forward calendar earnings is actually a two-to three multiple point discount to its **absolute** historical multiple. Hence, we think that this target is reasonable.

We estimate the company's projected total return (defined as earnings growth and dividend yield) to be 15.6%, versus 9.6% for the S&P 500.

There are risks to our price target and earnings projections. Our revised estimates assume that Medtronic achieves a 12% DES market share position in Europe in calendar 2005 and 15%+ share in calendar 2008. If the ENDEAVOR stent is seen as significantly less competitive to Cypher and TAXUS, this share position could be considerably lower in dollar terms. Other risks include possible share loss and slower market growth for ICDs. We also continue to project healthy growth for the company's spinal business. If we begin to see rapid uptake for competitive artificial discs, this could put pressure on the company's traditional spinal fusion franchise.

Industry View: Attractive
Fundamentals remain strong, and growth prospects look relatively robust for stocks in our coverage universe. With limited growth opportunities in the equity market and an increasingly uncertain outlook for large cap pharmaceuticals stocks, we view the med tech space as a reasonable place for investors to find growth.

Details

A Glimpse of the Future: Marty's Top Ten List
Dr. Martin Leon, Director of the Center for Interventional Vascular Therapy at Columbia University Medical Center in New York City, gave an overview of how far we have come in the evolution of interventional cardiology and an outlook on "what's next" in this dynamic market.

To date, the drug eluting stent (DES) has been the most significant innovation in the interventional cardiology market. Over the past 25 years, therapy has evolved from plain balloon angioplasty to new device angioplasty (such as atherectomy) to the "stent frenzy" of the mid 1990s and ultimately to the commercialization of the Cypher DES in 2003.

Nevertheless, there remain areas that need further investigation, including: (1) more safety data in "real world" scenarios, 2) more long-term durability data, and (3) more efficacy data in specific lesions subsets, such as left main disease, bifurcations, peripheral vascular disease, and acute MIs. Data regarding these issues is expected over the next several years with much of the recent clinical focus on comparable safety and efficacy data among market participants. In addition, Dr. Leon cited the immediate need for an optimized workhorse stent (particularly as it relates to deliverability), the need for physician training as well as additional clinical trials in complex lesions, and PCI enhancements.

As DES penetration approaches the 85-90% range in the United States, however, the focus in interventional cardiology will begin to shift to developing new technologies to treat the vast array of current unmet needs. While there are a plethora of emerging technologies in early stage development to address these needs, there are no short term "home runs" and most of the opportunity lies in the 2009-2010 time frame. As such, there is probably little that will prevent the interventional cardiology market from slowing over the next three to four years.

Dr. Leon addressed ten emerging technologies and factors that will help drive growth in the interventional cardiology market over the next several years.

1. **Acute Myocardial Infarction (AMI) - Vulnerable plaque: Way too early.** Only one third of heart attacks are due to the narrowing of arteries. The greater issue is "vulnerable plaque", which can burst and set off a

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series of potentially lethal events. It is believed that inflammatory pathways have something to do with the formation of vulnerable plaque. That said, we are a long way from finding efficient detection and proving that device therapy will be effective. There are at least four technologies being developed in this area that show promise of potential commercialization: (1) intravascular ultrasound, (2) virtual histology, (3) palpography, and (4) thermography. This opportunity will likely take 5-10 years to develop.

2. **Acute Myocardial Infarction Therapies: A series of disappointments.** Marty pointed that that companies will likely focus on techniques to improve myocardial viability during and after myocardial infarction. To date, device therapy has been met with dismal failure as hypothermia, distal protection devices, aqueous oxygen and thrombectomy have not proven to be effective.

3. **Enhanced Diagnostic Imaging: Great advances seen already.** Dr. Leon has been awed by recent improvements in imaging technology. CT angiography, MR Imaging, guided intravascular ultrasound have led to dramatic improvements. Unfortunately, for healthcare investors, there are few "pure plays" in this arena. This might however, lead to more patients screened for possible DES implantation.

4. **Endovascular Therapy: Still in its infancy.** Overall, endovascular therapy has been gaining acceptance in the physician community. The primary endovascular targets include: (1) carotid stenting, (2) renal stenting, (3) AAA endografts, (4) thoracic endografts, and (5) venous disease. Among these therapies, carotid stenting and AAA have been the most widely accepted to date. Going forward, we believe that the endovascular market should continue to represent a significant opportunity. That said, our panelists were relatively cautious about the prospects for peripheral drug eluting stents. (As a side note, panelists at our conference were a bit awed with the "hype" surrounding FoxHollow's Silverhawk atherectomy device. Most view this product as a niche product, at best).

5. **Structural Heart Disease: Big potential, but some time away.** Dr. Leon was generally enthusiastic about the opportunities in percutaneous mitral valve repair and aortic valve replacement. Of the two, repair will probably materialize sooner. Currently, there are several companies vying at this opportunity, including Viacor, Edwards Lifesciences, and CoreValve.

6. **Interventional Congestive Heart Failure (CHF): Some really interesting disruptive technologies.** Perhaps one of the most significant opportunities going forward, in our view, is the potential for interventional devices in the treatment of CHF. Dr. Leon views bi-ventricular pacing devices and implantable cardioverter defibrillators as the "tip of the iceberg" when it comes to treating congestive heart failure. Two potential device CHF therapies that appear to have significant market potential are: (1) Cardiac Contractility Modulation (Impulse Dynamics) which is an electrical stimulation device used to relieve symptoms of CHF and (2) an Interventional Intravascular Defibrillator (IID being developed by Interventional Rhythm Management). IID is a downsized defibrillator that can be implanted in 10 minutes by an interventional cardiologist.

7. **Micro and nano-technology** is another area that we believe will represent a strong opportunity down the road. In particular, we believe there is a high probability of nano-technology being an effective tool for patients to monitor AAAs stent grafts. Remon Medical and CardioMEMS are the leaders in this emerging market as it had a small sensor that can be implanted to monitor cardiac function.

8. **Refractory Ischemia: Very disappointing to date.** Over the past decade, there have been many attempts to grow and create new vessels to relieve ischemia with little success. It sounds like this opportunity will develop later, rather than sooner.

9. **Adjunctive PharmacoRx: A must.** Pharmaceutical therapy within interventional cardiology has been strong beneficiary of the drug eluting stent boom. In particular, all patients who receive a DES take anti-platelet drugs such as Plavix and Aspirin following the procedure. Potential opportunities down the road for interventional pharmaceutical products relate to anti-thrombins, PCI reperfusion strategies, and precise glycemic control in diabetes. Overall, it is important to note that pharmaceutical and device therapies **are not** competitors but rather complimentary to one another.

10. **Physician Training: Also a must.** Lastly, Dr. Leon noted physician training as a potential barrier to growth

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in the interventional cardiology market. We would expect some more technology-based training methodologies to be introduced over time. Overall, the educational process will need to evolve, as new technologies and therapies come to market.

Among these technologies, we are most encouraged about the commercial opportunities for 1) the downsized, stent-like ICDs (IID, Interventional Rhythm Management), (2) Percutaneous valve repair/replacement (Edwards and Viacor), 3) Nano sensor technology (Remon Medical and CardioMEMS) and (4) New stimulation devices to treat heart failure (CCM by Impulse Dynamics). As mentioned above, however, many of these technologies are several years away.

Update on AAA Stents and Carotid Stenting

Next, Dr. Takao Ohki, Chief of Vascular and Endovascular Surgery at the Montefiore Medical Center in New York, presented information on the current, less invasive approaches to treating abdominal aortic aneurysms (AAA) and carotid artery stenting.

AAA Market: Poised to Accelerate

Dr. Ohki began his presentation on a discussion on the AAA market. In general, Dr. Ohki remains excited about the long-term prospects of this market, estimated to be around $330 million in 2004. We think this market could grow in the low double-digits, while Dr. Ohki may be more optimistic. Below is a summary of the key points highlighted on AAA market by Dr. Ohki:

- **Recent clinical data continues to support benefits of AAA stent grafts.** Dr. Ohki pointed to data presented in 2004 from (1) a randomized prospective study called EVAR 1 and (2) the DREAM trial (Dutch). Both demonstrated a dramatic reduction in 30-day mortality, hospital stay and length of operation.

- **Increasing public awareness of AAA also a boost:** Dr. Ohki also believes that increasing public awareness of AAA stent grafts should help support penetration of this device in the future. Dr. Ohki pointed out that approximately 200,000 patients are diagnosed with AAA annually in the U.S., even with little screening. With the advent of newer imaging technologies such as ultrasound and CT (computed tomography) imaging, AAA stent graft penetration should accelerate.

- **Positive signs on reimbursement, although more will be needed:** As for reimbursement, the anticipated passing of the SAAAVE bill in Congress should also provide tailwind for reacceleration in this market. This bill will provide CMS funding of AAA screening for patients deemed to be at high risk (for example elderly smokers) for AAA.

In terms of the competitive landscape in the U.S., Dr. Ohki indicated that Medtronic's AneuRx stent graft continues to the market leader, although share has been declining due to concerns over efficacy and deliverability (migration of stent). Medtronic is working on enhancements to address these issue with the AneuRx II. Overseas, Medtronic's Talent stent graft is the leader in Europe, although the company will most likely need to initiate a new clinical trial to obtain FDA approval.

In terms of share gainers in this market, Dr. Ohki highlighted the Cook Zenith and the WL Gore Excluder devices as growing in market acceptance. In part, he attributed the momentum of Cook to the company's focus on offering a variety of devices to cover the entire aortic disease. We estimate that Cook and WL Gore are the #2 and #3 players currently on the market. Endologix recently gained FDA approval for its PowerLink device, but Dr. Ohki was not optimistic about this graft given concerns over versatility and stent migration. Other competitors trying to gain a footprint in this area include J&J (Fortron, US/OUS launch 1Q07/3Q06) and Boston Scientific (Trivascular, US launch 4Q07).

On a related note, Dr. Ohki highlighted thoracic aneurysms as an opportunity which may enhance growth for the endograft market. The FDA approval (with conditions) of the Gore TAG thoracic endoprosthesis is a positive step in expansion into this segment, which Dr. Ohki estimates to approximate 22,000 procedures, representing a $220-250 million opportunity. Medtronic and Cook are also looking to enter this market. Medtronic could be on the market as early as late 2005.

Carotid Stenting: Medicare Funding is Problematic

On the carotid artery stenting (CAS) front, Dr. Ohki indicated that excitement continues to surround this therapy.

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For perspective, we estimate this market to be around $150 million worldwide in 2005, growing to $600 million in 2008. Dr. Ohki thought that this estimate might prove to be a bit optimistic.

- **Limited reimbursement remains key concern:** Despite growing enthusiasm, CMS remains a key concern. In particular, in December 2004 CMS's draft decision limited CAS reimbursement only for high risk patients with > 70% stenosis (in combination with other symptoms such as Class III/IV heart failure, ejection fraction < 30%, unstable angina). This means that any asymptomatic or symptomatic patients with stenosis of 50-69% (part of FDA approval) will **not** be covered, reducing market potential at least in the near term. CMS plans to announce its final decision on March 17, 2005. Many stakeholders (including Guidant, the first manufacturer to have FDA approved carotid system) have already raised objections to this decision. Dr. Ohki does not expect CMS to change its draft decision and suspects that further data will be needed on asymptomatic patients for these guidelines to change.

- **Optimism for CREST and ACT I:** Speaking of the expanding patient population, Dr. Ohki did express optimism regarding the CREST study (NINDS, NIH) and the ACT I trial (Abbott Labs), both of which include asymptomatic patients (see our note dated February 23, 3005 -- *2005 Investors' Guide to Interventional Cardiology).* However, we do not expect meaningful data on this patient segment to be available in the near term. As such, we expect the uptake of this market to be more pronounced in 2007, partly due to the potential expansion of indication to this patient group.

- **Off-Label Use a "No-No":** Dr. Ohki was adamant that off-label use of CAS will be very limited, especially given CMS' hawkish attitude on the monitoring of this issue. Additionally, most physicians remain concerned and sensitive regarding off-label usage given the complexities of the procedure.

Dr. Ohki reminded investors that other issues to watch for in this market include the "turf war" between interventionalists and vascular surgeons, as well as the steep learning curve and certification process associated with carotid stenting. We suspect that this turf battle may have been behind the CMS decision mentioned above.

With respect to the competitive landscape in carotids, Guidant remains the only manufacturer with an FDA approved system in the U.S (3Q04 approval). Dr. Ohki indicated that the availability of Rapid Exchange (Rx) technology remains a key differentiator, which may favor Guidant and Boston Scientific. We expect the competitive dynamics will only become more intense from here on out as Boston Scientific and JNJ are expected to gain FDA approval in 2Q05. Both Abbott and Medtronic expect to gain FDA approval later in the year. Finally, ev3 expects to gain FDA approval for its carotid stent in 2006.

From Benchtop to Reality: Issues that remain in the DES market

Dr. Elazer Edelman, Director of the Harvard-MIT Biomedical Engineering Center in Boston was our next presenter. As an M.D. who focuses on biomedical engineering, Dr. Edelman was asked to speak to our group and discuss current scientific issues that the FDA is still grappling with regarding the drug eluting stent market. He focused on three major issues that are on the minds of the FDA:

1) Material/ Stent Interface: As drug eluting stents are sterilized and expanded, the polymer coatings on the stents tend to flake off and crack. Additionally, for the most part, quality control remains an industry wide problem. For this reason, he is excited about future DES programs that do not require polymers.

2) Drugs: Contrary to popular belief, there is no dose response for DES drugs in terms of efficacy. He is more concerned about the rate of release and the impact of having excess drug inside the stent for extended periods. We suspect that he was hinting of his concern that the vast majority of drug on a TAXUS stent remains present even several months after insertion.

3) There is no correlation between *in vitro* and *in vivo* results: Dr. Edelman thinks that this probably has to do with the solubility and molecular weight of the drugs. The environment and type of vessel might also play a role since these drugs bind to different proteins. For example, how else can one explain why drug eluting stents work well in

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the coronaries but not in the periphery? Change in elastin levels in the artery might explain the differences in efficacy.

Overall, Dr. Edelman thinks that there are differences in current DES approved drugs and the way they bind to the vessel. This may explain why Cypher might end up performing better than TAXUS in several difficult lesion subsets, such as in stent restenotic lesions. It may also explain why the use of multiple overlapping stents might cause thrombus. Here too, we feel that he was hinting that Cypher may be preferred in this situation as well.

DES: Update and Emerging Platforms

The final presentation of the day came from Dr. Campbell Rogers, Director of Cardiac Catheterization Lab at the Brigham & Women's Hospital. Dr. Rogers' focus was on the current battle within the DES market as well as a review of new stent entrants.

Late Loss Matters:

Dr. Rogers started off the presentation talking about statistics and his biases regarding data presented to date. For example, he is a big believer that late loss is important, and the lower the late loss, the better. This perhaps explains why clinicians in his practice have been loyal Cypher users since the product's launch. In his lab, 80% of drug eluting stents that are currently implanted are Cypher DES. This compares to 25% Cypher share for interventional cardiology physicians who work in his lab but are not part of his practice. He is generally less concerned about ease of delivery (which favors TAXUS), and more concerned about comparative safety and efficacy.

Next, Dr. Rogers talked about the data presented to date from various trials, and a pattern of performance suggesting that in more complicated vessels, Cypher tends to win out compared to TAXUS. The results from (1) "Long DES" trial (2) preliminary data from a Spanish trial (Cordoba/Las Palmas), and (3) ISAR DESIRE all reinforced this opinion.

ACC will be critical for Boston Scientific:

Perhaps more important to Dr. Rogers is the issue of safety with respect to drug eluting stents. Here too, Dr. Rogers was suggestive that Cypher might prove to be safer. As such, this year's ACC will be critical for both J&J and Boston Scientific. Specifically, full results of several head-to-head Cypher/TAXUS trials including REALITY, Cordoba/Las Palmas and SIRTAX will all be presented at the ACC. Additionally, TAXUS V, which looks at the use of TAXUS (vs. bare metal stents) in complicated lesions, will be presented.

As we have written about before, we think that TAXUS V has some safety issues pertaining to the use of overlapping stents. Taken by itself, the panel thought that this issue may not be a big deal. However, if the other head-to-head trials also suggest differences in safety, it could be a knock-out blow for Boston Scientific!

Specifically, as of today, we expect that consensus expectations are that these head-to-head trials will demonstrate (with statistical significance) lower late loss for Cypher when compared to TAXUS. On the other hand, this is not expected to manifest itself in differences in clinical restenosis or safety, since these trials are generally underpowered to show such differences. Therefore, it was the opinion of our panelists that if statistically significant differences in safety are detected, the current market dynamics could shift dramatically in favor of J&J since "one ounce of safety is worth more than a pound of efficacy". As such, even a consistent (non-statistically significant) trend of safety data suggesting that Cypher is safer than TAXUS might also accomplish the same thing. In our view, the body language from our panelists was clearly not good for Boston Scientific. Stay Tuned.

What about newer stent platforms?

Regarding newer stent platforms, Dr. Rogers' commentary were as follows. First, he agrees with our thesis that cobalt chromium stents will eventually dominate the DES market. Although clinicians had not used Boston Scientific's next generation stainless steel Liberte stent, most of our panelists found it hard to believe that it would be preferred over cobalt chromium. Second, with respect to Medtronic's ENDAVOR program, Dr. Rogers thinks that this is a "niche" product, if the high late loss witnessed for ENDEAVOR I is also seen in ENDEAVOR II. He also thinks that the product will be used mainly in cases where Cypher and TAXUS stents cannot be delivered properly to a vessel. This confirms our view that Medtronic's cobalt chromium platform will prove superior in terms of deliverability but inferior to Cypher and TAXUS in terms of efficacy. **Finally, during our panel discussions, we did have some specific discussions of the ENDEAVOR II trial. Despite comments made by some of our competitors, ENDEAVOR II data will be complete with normal number of patients returning for follow up.**

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Regarding Guidant's SPIRIT program, optimism is high given the strong SPIRIT First results. On a slightly negative note, the first investigators meeting for SPIRIT III will probably not take place until the middle of March. This probably pushes back the start of this trial from late Q1 to Q2. On the other hand, results from SPIRIT III will also be used for Japanese approval. As such, we think this confirms our aggressive assumption for a 2007 Japanese launch. Dr. Rogers did think that if the J&J/Guidant deal closes, J&J would elect to drop its chromium cobalt stent program (Cypher Neo) and favor another one that uses Guidant's Vision stent.

In terms of other programs, Dr. Rogers is also optimistic about Abbott's ZoMaxx program and Conor Medsystems' COSTAR program. Down the road, he was intrigued with fully bioabsorbable stents. Stay Tuned.

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Exhibit 1

Worldwide Sales by Manufacturer, 2001-2008E

Boston Scientific

($ millions)	2001	2002A	2003A	2004E	2005E	2006E	2007E	2008E
	$1,319	**$1,401**	**$1,756**	**$3,625**	**$4,122**	**$4,182**	**$3,592**	**$3,538**
Coronary Stents	344	318	527	2,351	2,775	2,683	1,942	1,721
Conventional Angioplasty	$593	$609	$692	$752	$793	$826	$860	$895
Peripheral Stents	141	152	166	172	184	193	204	215
Carotid Stents	0	2	5	5	17	45	80	130
Embolic Protection	2	13	32	51	65	95	125	155
Atherectomy	170	224	200	137	106	93	89	84
Intravascular Ultrasound	69	84	134	157	172	182	192	203
Vascular Closure	0	0	0	0	10	65	100	135

J&J

($ millions)	2001	2002A	2003A	2004E	2005E	2006E	2007E	2008E
	$956	**$1,191**	**$2,178**	**$2,594**	**$2,882**	**$2,795**	**$2,307**	**$2,054**
Coronary Stents	471	687	1,581	1,959	2,187	2,002	1,439	1,122
Radiation Therapy	8	8	8	5	3	2	1	1
Conventional Angioplasty	310	308	379	386	403	421	430	440
Peripheral Stents	162	182	204	235	264	290	320	356
Carotid Stents	5	6	7	9	25	80	117	135

Medtronic

($ millions)	2001	2002A	2003A	2004E	2005E	2006E	2007E	2008E
	$792	**$611**	**$597**	**$606**	**$638**	**$713**	**$874**	**$1,157**
Coronary Stents	580	394	360	317	312	343	485	735
Conventional Angioplasty	185	182	174	225	262	279	265	251
Peripheral Stents	16	19	20	22	25	26	29	30
Carotid Stents	0	0	0	2	6	25	40	55
Embolic Protection	12	17	43	40	28	32	45	70
Vascular Closure	0	0	0	0	$6	$8	$10	$15

Guidant

($ millions)	2001	2002A	2003A	2004E	2005E	2006E	2007E	2008E
	$1,266	**$1,363**	**$1,288**	**$1,020**	**$872**	**$1,132**	**$2,237**	**$2,419**
Coronary Stents	819	874	783	440	222	455	1,540	1,702
Radiation Therapy	5	43	0	0	0	0	0	0
Conventional Angioplasty	387	371	409	432	439	424	412	398
Peripheral Stents	39	53	65	82	95	107	119	134
Carotid Stents	5	8	11	38	80	106	134	154
Atherectomy	11	14	20	29	36	40	32	31

Abbott

($ millions)	2001	2002A	2003A	2004E	2005E	2006E	2007E	2008E
	$115	**$110**	**$110**	**$142**	**$185**	**$272**	**$403**	**$525**
Coronary Stents	25	15	8	29	55	100	200	300
Carotid Stents	0	0	2	5	10	40	60	70
Vascular Closure	90	95	100	108	120	132	143	155

St. Jude

($ millions)	2001	2002A	2003A	2004E	2005E	2006E	2007E	2008E
	$95	**$153**	**$218**	**$288**	**$322**	**$359**	**$395**	**$434**
Vascular Closure	95	153	218	288	322	359	395	434

Source: Morgan Stanley Research

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Exhibit 2

Coronary Stent Estimated U.S. Sales, 2000-2008E

	2000	2001	2002	2003A	2004A	2005E	2006E	2007E	2008E
No. of PTCA Procedures (000)	770	810	850	920	970	1020	1070	1124	1180
% change	6%	5%	5%	8%	5%	5%	5%	5%	5%
% of PTCA Procedures Using Stents	81%	85%	88%	90%	90%	90%	90%	90%	90%
Number of Stent Procedures (000)	624	690	751	828	873	922	966	1016	1066
% change	15%	11%	9%	10%	5%	6%	5%	5%	5%
% of Stent Procedures Using Bare Metal Stents	**100%**	**100%**	**100%**	**67%**	**21%**	**11%**	**5%**	**4%**	**3%**
% of Stent Procedures Using Drug-Eluting Stents	**0%**	**0%**	**0%**	**33%**	**79%**	**90%**	**95%**	**96%**	**97%**
US Bare Metal Stent Market									
Number of Bare Metal Stent Procedures (000)	624	690	751	557	181	97	52	42	34
Stents Per Procedure	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6
Price Per Bare Metal Stent	$1,350	$1,202	$1,121	$900	$950	$600	$600	$550	$530
Total Revenues Per Procedure	$2,381	$2,073	$1,861	$1,486	$1,658	$930	$960	$869	$869
Total US Bare Metal Stent Market *($ millions)*	$1,485	$1,431	$1,397	$828	$300	$90	$50	$36	$30
Stocking *($ millions)*	($59)	$21	($5)	$0	$1	$0	$0	$0	$0
Total US Bare Metal Stent Sales *($ millions)*	**$1,426**	**$1,452**	**$1,392**	**$828**	**$301**	**$90**	**$50**	**$36**	**$30**
% Change	1%	2%	-4%	-41%	-64%	-70%	-44%	-28%	-18%
US Drug-Eluting Stent Market									
Number of Drug-Eluting Stent Procedures (000)	0	0	0	271	692	825	914	974	1032
Stents Per Procedure				1.5	1.6	1.6	1.6	1.6	1.6
Price Per Drug-Eluting Stent				$2,800	$2,525	$2,475	$2,300	$2,225	$2,200
Total Revenues Per Procedure				$4,060	$4,012	$3,977	$3,770	$3,614	$3,479
Total US Drug-Eluting Stent Market ($ millions)				$1,100	$2,778	$3,282	$3,446	$3,520	$3,592
Stocking *($ millions)*				$0	$11	$0	$0	$0	$0
Total US Drug-Eluting Stent Sales ($ millions)				**$1,100**	**$2,789**	**$3,282**	**$3,446**	**$3,520**	**$3,592**
% Change					154%	18%	5%	2%	2%
Total US Stent Market									
Total Number of Stent Procedures (000)	624	690	751	828	873	922	966	1016	1066
Stents Per Procedure	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
Average Price Per Stent	$1,350	$1,202	$1,121	$1,521	$2,199	$2,278	$2,208	$2,156	$2,147
Total Revenues Per Procedure	$2,381	$2,073	$1,861	$5,546	$5,670	$4,907	$4,730	$4,483	$4,349
Total US Stent Market *($ millions)*	$1,485	$1,431	$1,397	$1,927	$3,077	$3,372	$3,496	$3,557	$3,621
Stocking *($ millions)*	($59)	$21	($5)	$0	$12	$0	$0	$0	$0
Total US Stent Sales *($ millions)*	**$1,426**	**$1,452**	**$1,392**	**$1,927**	**$3,089**	**$3,372**	**$3,496**	**$3,557**	**$3,621**
% Change	1%	2%	-4%	39%	60%	9%	4%	2%	2%
Total US Stent Sales By Competitor	**$1,426**	**$1,452**	**$1,392**	**$1,928**	**$3,090**	**$3,372**	**$3,496**	**$3,556**	**$3,622**
Bare Metal	**$1,426**	**$1,452**	**$1,392**	**$828**	**$301**	**$90**	**$50**	**$36**	**$30**
Boston Scientific	$248	$182	$180	$213	$62	$18	$5	$5	$5
Guidant[1]	$594	$585	$576	$402	$162	$45	$15	$10	$10
Johnson & Johnson	$148	$309	$387	$75	$18	$15	$10	$10	$5
Medtronic	$418	$356	$197	$118	$59	$12	$20	$11	$10
Other	$18	$20	$52	$20	$0	$0	$0	$0	$0
Drug-Eluting				**$1,100**	**$2,789**	**$3,282**	**$3,446**	**$3,520**	**$3,592**
Boston Scientific				$0	$1,570	$2,080	$2,125	$1,265	$1,170
Guidant[1]				$0	$0	$0	$0	$1,000	$1,137
Johnson & Johnson				$1,100	$1,219	$1,202	$1,321	$944	$757
Medtronic				$0	$0	$0	$0	$190	$330
Other				$0	$0	$0	$0	$121	$198
US Stent Market Shares									
Bare Metal	100%	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	17%	13%	13%	26%	21%	20%	10%	14%	17%
Guidant	42%	40%	41%	49%	54%	50%	30%	28%	33%
Johnson & Johnson	10%	21%	28%	9%	6%	17%	20%	28%	17%
Medtronic	29%	25%	14%	14%	20%	13%	40%	31%	33%
Other	1%	1%	4%	2%	0%	0%	0%	0%	0%
Drug-Eluting				100%	100%	100%	100%	100%	100%
Boston Scientific				0%	56%	63%	62%	36%	33%
Guidant				0%	0%	0%	0%	28%	32%
Johnson & Johnson				100%	44%	37%	38%	27%	21%
Medtronic				0%	0%	0%	0%	5%	9%
Other				0%	0%	0%	0%	3%	6%

E = Morgan Stanley Research Estimate

[1] Guidant's revenues in this model reflect end-user sales only. This excludes component sales to JNJ, which the company includes in its reported coronary stent revenues in the US.

Source: Morgan Stanley Research

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Exhibit 3

Coronary Stent Estimated International Sales, 2000-2008E

	2000	2001	2002	2003A	2004A	2005E	2006E	2007E	2008E
No. of PTCA Procedures (000)	702	804	951	1063	1151	1241	1339	1445	1432
% change	11%	15%	18%	12%	8%	8%	8%	8%	-1%
% of PTCA Procedures Using Stents	68%	72%	74%	74%	78%	80%	80%	81%	82%
Number of Stent Procedures (000)	480	576	708	788	892	989	1072	1168	1179
% change	19%	20%	23%	11%	13%	11%	8%	9%	1%
% of Stent Procedures Using Bare Metal Stents	**100%**	**100%**	**95%**	**72%**	**47%**	**31%**	**21%**	**16%**	**13%**
% of Stent Procedures Using Drug-Eluting Stents	**0%**	**0%**	**5%**	**28%**	**53%**	**69%**	**79%**	**84%**	**87%**
OUS Bare Metal Stent Market									
Number of Bare Metal Stent Procedures (000)	480	576	672	567	423	308	227	188	155
Stents Per Procedure	1.3	1.3	1.3	1.4	1.6	1.6	1.6	1.6	1.6
Price Per Bare Metal Stent	$1,335	$1,147	$1,047	$1,179	$1,167	$1,014	$853	$834	$832
Total Revenues Per Procedure	$1,698	$1,439	$1,334	$1,684	$1,890	$1,608	$1,402	$1,367	$1,369
Total OUS Bare Metal Stent Market *($ millions)*	$815	$838	$907	$948	$802	$498	$319	$257	$213
Stocking *($ millions)*	$0	($4)	$1	$0	$7	$0	$0	$0	$0
Total OUS Bare Metal Stent Sales *($ millions)*	**$815**	**$834**	**$907**	**$948**	**$809**	**$498**	**$319**	**$257**	**$213**
% Change	12%	2%	9%	4%	-15%	-38%	-36%	-19%	-17%
OUS Drug-Eluting Stent Market									
Number of Drug-Eluting Stent Procedures (000)	0	0	36	222	469	680	845	980	1023
Stents Per Procedure			1.3	1.4	1.5	1.5	1.5	1.5	1.5
Price Per Drug-Eluting Stent			$1,650	$1,645	$1,744	$1,741	$1,527	$1,401	$1,302
Total Revenues Per Procedure			$2,063	$2,229	$2,673	$2,633	$2,312	$2,089	$1,967
Total OUS Drug-Eluting Stent Market ($ millions)			$74	$494	$1,245	$1,759	$1,918	$2,034	$1,982
Stocking *($ millions)*			$0	$0	$6	$0	$0	$0	$0
Total OUS Drug-Eluting Stent Sales ($ millions)			**$74**	**$494**	**$1,251**	**$1,759**	**$1,918**	**$2,034**	**$1,982**
% Change				565%	153%	41%	9%	6%	-3%
Total OUS Stent Market									
Total Number of Stent Procedures (000)	480	576	708	788	892	989	1072	1168	1179
Stents Per Procedure	1.3	1.3	1.3	1.4	1.6	1.5	1.5	1.5	1.5
Average Price Per Stent	$1,335	$1,147	$1,078	$1,310	$1,470	$1,514	$1,384	$1,310	$1,240
Total Revenues Per Procedure	$1,698	$1,439	$1,372	$1,844	$2,314	$2,325	$2,133	$1,984	$1,895
Total OUS Stent Market *($ millions)*	$815	$838	$981	$1,442	$2,047	$2,256	$2,236	$2,291	$2,195
Stocking *($ millions)*	$0	($4)	$1	$0	$13	$0	$0	$0	$0
Total OUS Stent Sales *($ millions)*	**$815**	**$834**	**$982**	**$1,442**	**$2,060**	**$2,256**	**$2,236**	**$2,291**	**$2,195**
% Change	12%	2%	18%	47%	43%	10%	-1%	2%	-4%
Total OUS Stent Sales By Competitor	**$815**	**$834**	**$981**	**$1,442**	**$2,060**	**$2,256**	**$2,236**	**$2,291**	**$2,195**
Bare Metal	**$815**	**$834**	**$907**	**$948**	**$808**	**$498**	**$319**	**$257**	**$213**
Boston Scientific	$181	$162	$138	$115	$146	$82	$44	$37	$30
Guidant	$227	$234	$298	$381	$278	$177	$110	$80	$55
Johnson & Johnson	$112	$162	$230	$130	$78	$50	$25	$20	$15
Medtronic	$220	$224	$197	$242	$276	$159	$121	$95	$83
Other	$75	$52	$43	$80	$30	$30	$19	$25	$30
Drug-Eluting			**$74**	**$494**	**$1,252**	**$1,758**	**$1,917**	**$2,034**	**$1,982**
Boston Scientific			$0	$199	$573	$595	$509	$635	$516
Guidant			$0	$0	$0	$0	$330	$450	$500
Johnson & Johnson			$70	$276	$644	$920	$646	$465	$345
Medtronic			$0	$0	$0	$150	$229	$229	$367
Other			$4	$19	$35	$93	$203	$255	$254
OUS Stent Market Shares									
Bare Metal	100%	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	22%	19%	15%	12%	18%	16%	14%	14%	14%
Guidant	28%	28%	33%	40%	34%	36%	34%	31%	26%
Johnson & Johnson	14%	19%	25%	14%	10%	10%	8%	8%	7%
Medtronic	27%	27%	22%	26%	34%	32%	38%	37%	39%
Other	9%	6%	5%	8%	4%	6%	6%	10%	14%
Drug-Eluting			100%	100%	100%	100%	100%	100%	100%
Boston Scientific			0%	40%	46%	34%	27%	31%	26%
Guidant			0%	0%	0%	0%	17%	22%	25%
Johnson & Johnson			95%	56%	51%	52%	34%	23%	17%
Medtronic			0%	0%	0%	9%	12%	11%	19%
Other			5%	4%	3%	5%	11%	13%	13%

E = Morgan Stanley Research Estimate
Source: Morgan Stanley Research

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Exhibit 4

Coronary Stent Estimated Worldwide Sales, 2000-2008E

	2000	2001	2002A	2003A	2004A	2005E	2006E	2007E	2008E
No. of Stent Procedures (000)	1103	1266	1459	1616	1765	1911	2038	2184	2245
% change	17%	15%	15%	11%	9%	8%	7%	7%	3%
Stents per Procedure	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
Price Per Stent	$1,345	$1,185	$1,108	$1,391	$1,817	$1,880	$1,772	$1,711	$1,666
% change	-6%	-12%	-7%	26%	31%	3%	-6%	-3%	-3%
Revenue Per Procedure	$2,084	$1,791	$1,630	$2,085	$2,903	$2,945	$2,812	$2,677	$2,591
% change	-8%	-14%	-9%	28%	39%	1%	-5%	-5%	-3%
Total Worldwide Stent Market *($ millions)*	$2,300	$2,269	$2,378	$3,370	$5,124	$5,629	$5,732	$5,848	$5,816
Stocking *($ millions)*	($59)	$17	($5)	$0	$25	$0	$0	$0	$0
Total Worldwide Stent Sales *($ millions)*	**$2,241**	**$2,286**	**$2,373**	**$3,370**	**$5,149**	**$5,629**	**$5,732**	**$5,848**	**$5,816**
% change	5%	2%	4%	42%	53%	9%	2%	2%	-1%
WW Revenues By Competitor *($ millions)*	**$2,241**	**$2,286**	**$2,372**	**$3,370**	**$5,150**	**$5,628**	**$5,732**	**$5,847**	**$5,817**
Boston Scientific	$429	$344	$318	$527	$2,351	$2,775	$2,683	$1,942	$1,721
Guidant	$821	$819	$874	$783	$440	$222	$455	$1,540	$1,702
Johnson & Johnson	$260	$471	$687	$1,581	$1,959	$2,187	$2,002	$1,439	$1,122
Medtronic	$638	$580	$394	$360	$335	$321	$370	$525	$790
Other	$93	$72	$99	$119	$65	$123	$222	$401	$482
WW Market Shares	100%	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	19%	15%	13%	16%	46%	49%	47%	33%	30%
Guidant	37%	36%	37%	23%	9%	4%	8%	26%	29%
Johnson & Johnson	12%	21%	29%	47%	38%	39%	35%	25%	19%
Medtronic	28%	25%	17%	11%	7%	6%	6%	9%	14%
Other	4%	3%	4%	4%	1%	2%	4%	7%	8%

E = Morgan Stanley Research Estimate

Source: Morgan Stanley Research

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Exhibit 5

PTCA Estimated U.S. Sales, 2001-2008E

United States	2000	2001A	2002A	2003A	2004E	2005E	2006E	2007E
No. of PTCA Procedures (000)	770	810	850	920	970	1,020	1,070	1,124
% Change	6%	5%	5%	8%	5%	5%	5%	5%
Total Accessory Revenue *($ millions)*	$285	$292	$289	$304	$320	$337	$337	$348
Total Revenue Per Procedure	$810	$820	$790	$820	$820	$820	$790	$760
% Change	-6%	1%	-4%	4%	0%	0%	-4%	-4%
Total U.S. PTCA & Acc. Sales *($ millions)*	**$627**	**$666**	**$671**	**$753**	**$794**	**$832**	**$847**	**$858**
% Change	1%	6%	1%	12%	5%	5%	2%	1%
US Revenues By Competitor *($ millions)*	**$627**	**$666**	**$671**	**$753**	**$794**	**$832**	**$848**	**$858**
Boston Scientific	$246	$283	$301	$372	$407	$433	$455	$478
Guidant	$188	$199	$190	$202	$206	$206	$197	$188
Johnson & Johnson	$103	$105	$103	$106	$98	$98	$98	$98
Medtronic	$69	$64	$62	$61	$71	$82	$86	$81
Other	$21	$15	$15	$12	$12	$12	$12	$12
US Market Shares								
Boston Scientific	39%	43%	45%	49%	51%	52%	54%	56%
Guidant	30%	30%	28%	27%	26%	25%	23%	22%
Johnson & Johnson	16%	16%	15%	14%	12%	12%	12%	11%
Medtronic	11%	10%	9%	8%	9%	10%	10%	9%
Other	3%	2%	2%	2%	2%	1%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: Morgan Stanley Research

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Exhibit 6

PTCA Estimated International Sales, 2001-2008E

($ Millions)

International	2000	2001A	2002A	2003A	2004E	2005E	2006E	2007E	2008E
European PTCA Procedures (000)	376	434	521	583	636	687	742	801	865
% change	9%	16%	20%	12%	9%	8%	8%	8%	8%
Japanese PTCA Procedures (000)	132	142	150	158	164	172	181	190	199
% change	9%	8%	6%	5%	4%	5%	5%	5%	5%
Rest of World PTCA Procedures (000)	195	230	281	321	352	383	417	455	496
% change	17%	18%	22%	15%	10%	9%	9%	9%	9%
Total Int'l PTCA Procedures (000)	703	806	951	1062	1151	1241	1339	1445	1560
% change	11%	15%	18%	12%	8%	8%	8%	8%	8%
Revenue per Procedure	$1,275	$1,215	$1,094	$1,077	$1,066	$1,042	$992	$924	$862
% change	-4%	-5%	-10%	-2%	-1%	-2%	-5%	-7%	-7%
Total Int'l PTCA Sales *($ millions)*	**$896**	**$979**	**$1,040**	**$1,144**	**$1,228**	**$1,293**	**$1,329**	**$1,336**	**$1,345**
% change	7%	9%	6%	10%	7%	5%	3%	1%	1%
	571	664	801	905	988	1069	1159	1256	1361
OUS Revenues By Competitor *($ millions)*	**$896**	**$979**	**$1,039**	**$1,144**	**$1,228**	**$1,293**	**$1,329**	**$1,336**	**$1,345**
Boston Scientific	$303	$310	$308	$320	$345	$359	$371	$382	$395
Guidant	$172	$188	$181	$207	$226	$233	$227	$224	$218
Johnson & Johnson	$202	$205	$205	$273	$288	$305	$323	$332	$342
Medtronic	$104	$121	$120	$113	$154	$180	$193	$183	$174
Other	$115	$155	$225	$230	$215	$215	$215	$215	$215
OUS Market Shares	100%	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	34%	32%	30%	28%	28%	28%	28%	29%	29%
Guidant	19%	19%	17%	18%	18%	18%	17%	17%	16%
Johnson & Johnson	23%	21%	20%	24%	23%	24%	24%	25%	25%
Medtronic	12%	12%	12%	10%	13%	14%	15%	14%	13%
Other	13%	16%	22%	20%	18%	17%	16%	16%	16%

E = Morgan Stanley Research Estimate

Source: Morgan Stanley Research

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Exhibit 7

PTCA Estimated Worldwide Sales, 2001-2008E

Worldwide	2001A	2002A	2003A	2004E	2005E	2006E	2007E	2008E
No. of PTCA Procedures (000)	1616	1801	1982	2121	2261	2409	2569	2740
% change	10%	11%	10%	7%	7%	7%	7%	7%
Revenue per Procedure	$1,018	$950	$957	$953	$940	$903	$854	$807
% change	-2%	-7%	1%	0%	-1%	-4%	-5%	-5%
Total Worldwide PTCA Sales *($ millions)*	**$1,645**	**$1,712**	**$1,896**	**$2,022**	**$2,125**	**$2,176**	**$2,195**	**$2,212**
% change	8%	4%	11%	7%	5%	2%	1%	1%
WW Revenues By Competitor *($ millions)*	**$1,645**	**$1,710**	**$1,897**	**$2,022**	**$2,124**	**$2,177**	**$2,194**	**$2,211**
Boston Scientific	$593	$609	$692	$752	$793	$826	$860	$895
Guidant	$387	$371	$409	$432	$439	$424	$412	$398
Johnson & Johnson	$310	$308	$379	$386	$403	$421	$430	$440
Medtronic	$185	$182	$174	$225	$262	$279	$265	$251
Other	$170	$240	$242	$227	$227	$227	$227	$227
WW Market Shares	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	36%	36%	37%	37%	37%	38%	39%	40%
Guidant	24%	22%	22%	21%	21%	19%	19%	18%
Johnson & Johnson	19%	18%	20%	19%	19%	19%	20%	20%
Medtronic	11%	11%	9%	11%	12%	13%	12%	11%
Other	10%	14%	13%	11%	11%	10%	10%	10%

E = Morgan Stanley Research Estimate

Source: Morgan Stanley Research

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Exhibit 8

In-Stent Restenosis (Brachytherapy) Estimated Worldwide Sales, 2001-2008E

In-Stent Restenosis
Estimated Worldwide Market, 2001-2008E

($ millions)	2001	2002	2003	2004E	2005E	2006E	2007E	2008E
Total Worldwide Market	**$83**	**$120**	**$71**	**$29**	**$17**	**$12**	**$9**	**$7**
Guidant	$5	$43	$0	$0	$0	$0	$0	$0
Johnson & Johnson	$8	$8	$8	$5	$3	$2	$1	$1
Novoste	$70	$69	$63	$24	$14	$10	$8	$6
	01/00	02/01	03/02	04/03	05/04	06/05	07/06	07/08
Worldwide Market Growth	nm	**44%**	**-41%**	**-59%**	**-40%**	**-31%**	**-25%**	**-18%**
Guidant	nm	nm	nm	nm	nm	nm	nm	nm
Johnson & Johnson	nm	0%	-3%	-36%	-40%	-33%	-50%	0%
Novoste	nm	-1%	-9%	-62%	-40%	-30%	-20%	-20%
($ millions)	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Total US Market Shares	100%	100%	100%	100%	100%	100%	100%	100%
Guidant	6%	36%	0%	0%	0%	0%	0%	0%
Johnson & Johnson	10%	7%	11%	17%	17%	17%	11%	13%
Novoste	84%	58%	89%	83%	83%	83%	89%	87%

Source: Morgan Stanley Research

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Exhibit 9

Embolic Protection Worldwide Estimated Sales, 2001-2008E

Distal Protection
Estimated Worldwide Market, 2001-2008E

($ millions)	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Total Worldwide Market	**$18**	**$35**	**$80**	**$97**	**$106**	**$152**	**$215**	**$280**
Boston Scientific	$2	$13	$32	$51	$65	$95	$125	$155
Medtronic	$12	$17	$43	$40	$28	$32	$45	$70
EV3	$0	$1	$2	$4	$8	$22	$41	$53
Other	$4	$4	$3	$3	$5	$3	$4	$2
	01/00	02/01	03/02	04/03	05/04	06/05	07/06	07/08
Worldwide Market Growth	**NM**	**NM**	**NM**	**22%**	**9%**	**43%**	**41%**	**30%**
Boston Scientific	NM	NM	NM	59%	27%	46%	32%	24%
Medtronic	NM	42%	153%	-8%	-29%	14%	41%	56%
EV3	NM	NM	80%	106%	111%	179%	86%	30%
Other	NM	-12%	-26%	16%	67%	-46%	34%	-46%
	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Worldwide Market Share	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	11%	37%	40%	52%	61%	63%	58%	55%
Medtronic	65%	49%	54%	41%	26%	21%	21%	25%
EV3	0%	3%	2%	4%	7%	14%	19%	19%
Other	24%	11%	4%	3%	5%	2%	2%	1%

Source: Morgan Stanley Research

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Exhibit 10

Carotid Stent Estimated U.S. Sales, 2001-2008E

Year	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Total US Carotid Interventions (000)	160	162	170	180	198	218	250	275
% growth	*1%*	*1%*	*5%*	*6%*	*10%*	*10%*	*15%*	*10%*
% Carotid Endorectomy	99%	99%	99%	96%	86%	71%	60%	53%
% Stent	1%	1%	1%	4%	15%	29%	40%	47%
# of Carotid Stent Procedures (000)	2	2	2	8	29	64	100	130
% growth		*-6%*	*5%*	*242%*	*280%*	*122%*	*57%*	*30%*
Revenue per Procedure	$ 2,000	$ 2,500	$ 3,000	$ 3,500	$ 3,500	$ 3,450	$ 3,375	$ 3,300
% growth		*25%*	*20%*	*17%*	*0%*	*-1%*	*-2%*	*-2%*
Revenues ($ millions)	**$ 4**	**$ 5**	**$ 7**	**$ 26**	**$ 100**	**$ 220**	**$ 338**	**$ 430**
% growth		*17%*	*26%*	*300%*	*280%*	*119%*	*54%*	*27%*
US Revenues By Competitor ($ millions)	**$ 4**	**$ 5**	**$ 7**	**$ 26**	**$ 100**	**$ 220**	**$ 338**	**$ 430**
Boston Scientific	$ -	$ -	$ -	$ -	$ 7	$ 25	$ 55	$ 100
Guidant	$ 1	$ 2	$ 3	$ 22	$ 60	$ 80	$ 100	$ 110
Johnson & Johnson	$ 3	$ 3	$ 4	$ 4	$ 15	$ 65	$ 100	$ 110
Medtronic	$ -	$ -	$ -	$ -	$ 3	$ 20	$ 30	$ 40
Other	$ -	$ -	$ -	$ -	$ 15	$ 30	$ 53	$ 70
US Market Shares	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	0%	0%	0%	0%	7%	11%	16%	23%
Guidant	25%	40%	43%	85%	60%	36%	30%	26%
Johnson & Johnson	75%	60%	57%	15%	15%	30%	30%	26%
Medtronic	0%	0%	0%	0%	3%	9%	9%	9%
Other	0%	0%	0%	0%	15%	14%	16%	16%

E = Morgan Stanley Research Estimate

Source: Morgan Stanley Research

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Exhibit 11

Carotid Stent Estimated International Sales, 2001-2008E

Year	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Total OUS Carotid Interventions (000)	80	82	86	94	107	120	136	150
% growth	*1%*	*2%*	*5%*	*10%*	*13%*	*13%*	*13%*	*10%*
% Carotid Endorectomy	95%	93%	93%	87%	82%	75%	68%	60%
% Stent	5%	7%	8%	13%	18%	25%	32%	40%
# of Carotid Stent Procedures (000)	4	6	6	12	19	30	44	60
% growth		*20%*	*13%*	*91%*	*56%*	*57%*	*45%*	*38%*
Revenue per Procedure	$ 1,500	$ 2,000	$ 2,500	$ 2,800	$ 2,800	$ 2,750	$ 2,700	$ 2,650
% growth		*33%*	*25%*	*12%*	*0%*	*-2%*	*-2%*	*-2%*
Revenues ($ millions)	**$ 6**	**$ 11**	**$ 16**	**$ 34**	**$ 54**	**$ 83**	**$ 117**	**$ 159**
% growth		*90%*	*41%*	*114%*	*56%*	*54%*	*42%*	*35%*
OUS Revenues By Competitor ($ millions)	**$ 6**	**$ 11**	**$ 16**	**$ 34**	**$ 54**	**$ 83**	**$ 117**	**$ 159**
Boston Scientific	$ -	$ 2	$ 5	$ 5	$ 10	$ 20	$ 25	$ 30
Guidant	$ 4	$ 6	$ 8	$ 16	$ 20	$ 26	$ 34	$ 44
Johnson & Johnson	$ 2	$ 3	$ 3	$ 5	$ 10	$ 15	$ 17	$ 25
Medtronic	$ -	$ -	$ -	$ 2	$ 3	$ 5	$ 10	$ 15
Other	$ -	$ -	$ -	$ 6	$ 11	$ 17	$ 31	$ 45
OUS Market Shares	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	0%	18%	31%	15%	19%	24%	21%	19%
Guidant	67%	55%	50%	47%	37%	31%	29%	28%
Johnson & Johnson	33%	27%	19%	15%	19%	18%	15%	16%
Medtronic	0%	0%	0%	6%	6%	6%	9%	9%
Other	0%	0%	0%	18%	20%	20%	26%	28%

E = Morgan Stanley Research Estimate

Source: Morgan Stanley Research

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Exhibit 12

Carotid Stent Estimated Worldwide Sales, 2001-2008E

Year	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Total Carotid Interventions (000)	240	243	255	274	304	338	386	425
% growth	*1%*	*1%*	*5%*	*7%*	*11%*	*11%*	*14%*	*10%*
% Carotid Endarectomy	97%	97%	97%	93%	84%	72%	63%	55%
% Stent	3%	3%	3%	7%	16%	28%	37%	45%
# of Carotid Stent Procedures (000)	6	8	9	20	48	94	144	190
% growth		*25%*	*10%*	*129%*	*142%*	*96%*	*53%*	*32%*
Revenue per Procedure	$ 1,679	$ 2,134	$ 2,628	$ 3,067	$ 3,220	$ 3,226	$ 3,170	$ 3,095
% growth		*27%*	*23%*	*17%*	*5%*	*0%*	*-2%*	*-2%*
Revenues ($ millions)	$ 10	$ 17	$ 23	$ 61	$ 154	$ 303	$ 455	$ 588
% growth		*59%*	*36%*	*168%*	*154%*	*96%*	*50%*	*29%*
Revenues By Competitor ($ millions)								
Boston Scientific	$ -	$ 2	$ 5	$ 5	$ 17	$ 45	$ 80	$ 130
Guidant	$ 5	$ 8	$ 11	$ 38	$ 80	$ 106	$ 134	$ 154
Johnson & Johnson	$ 5	$ 6	$ 7	$ 9	$ 25	$ 80	$ 117	$ 135
Medtronic	$ -	$ -	$ -	$ 2	$ 6	$ 25	$ 40	$ 55
Other	$ -	$ -	$ -	$ 6	$ 26	$ 47	$ 84	$ 115
Market Shares								
Boston Scientific	0%	13%	22%	8%	11%	15%	18%	22%
Guidant	50%	50%	48%	63%	52%	35%	29%	26%
Johnson & Johnson	50%	38%	30%	15%	16%	26%	26%	23%
Medtronic	0%	0%	0%	3%	4%	8%	9%	9%
Other	0%	0%	0%	10%	17%	16%	18%	20%

E = Morgan Stanley Research Estimate

Source: Morgan Stanley Research

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Exhibit 13

Peripheral Stents Estimated U.S. Sales, 2001-2008E

($ millions)	2001	2002	2003	2004E	2005E	2006E	2007E	2008E	02/01	03/02	04/03	05/04	06/05	07/06	08/07
Lower Body															
Iliac	$170	$197	$217	$239	$257	$273	$290	$306	16%	10%	10%	8%	6%	6%	5%
Femoral/Popliteal	$25	$27	$31	$37	$47	$61	$79	$99	10%	15%	20%	25%	30%	30%	25%
Upper Body															
Renal/Subclavian	$70	$81	$93	$113	$141	$162	$187	$205	15%	15%	22%	25%	15%	15%	10%
Total US Market	**$264**	**$305**	**$341**	**$390**	**$445**	**$496**	**$556**	**$610**	**15%**	**12%**	**14%**	**14%**	**11%**	**12%**	**10%**
Total US Market	**$264**	**$305**	**$341**	**$390**	**$445**	**$496**	**$556**	**$610**							
Johnson & Johnson	$113	$131	$149	$170	$191	$210	$232	$259	16%	13%	14%	12%	10%	10%	12%
Boston Scientific	$94	$99	$100	$102	$107	$112	$118	$124	6%	1%	2%	5%	5%	5%	5%
Guidant	$31	$42	$48	$59	$68	$75	$81	$87	33%	15%	23%	15%	11%	7%	8%
Medtronic	$8	$11	$14	$15	$17	$18	$20	$20	36%	33%	10%	10%	6%	11%	0%
CR Bard	$13	$15	$20	$31	$37	$41	$45	$49	15%	33%	55%	20%	10%	10%	10%
EV3	$6	$6	$8	$10	$12	$20	$30	$40	0%	33%	25%	20%	67%	50%	20%
Other	$0	$2	$2	$2	$13	$20	$30	$30	NM	NM	NM	NM	54%	50%	0%
Total US Market Shares	100%	100%	100%	100%	100%	100%	100%	100%							
Johnson & Johnson	43%	43%	44%	44%	43%	42%	42%	42%							
Boston Scientific	35%	32%	29%	26%	24%	23%	21%	20%							
Guidant	12%	14%	14%	15%	15%	15%	15%	14%							
Medtronic	3%	3%	4%	4%	4%	4%	4%	3%							
CR Bard	5%	5%	6%	8%	8%	8%	8%	8%							
EV3 (IntraTherapeutics)	2%	2%	2%	3%	3%	4%	5%	7%							
Other	0%	1%	1%	1%	3%	4%	5%	5%							

Source: Company data, Morgan Stanley Research

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Exhibit 14

Peripheral Stents Estimated International Sales, 2001-2008E

($ millions)	2001	2002	2003	2004E	2005E	2006E	2007E	2008E	02/01	03/02	04/03	05/04	06/05	07/06	08/07
Lower Body															
Iliac	$90	$95	$104	$116	$123	$130	$136	$143	5%	10%	11%	7%	5%	5%	5%
Femoral/Popliteal	$25	$26	$32	$40	$49	$62	$74	$85	5%	20%	25%	25%	25%	20%	15%
Upper Body															
Renal/Subclavian	$30	$33	$40	$50	$59	$71	$82	$94	10%	20%	25%	20%	20%	15%	15%
Total OUS Market	**$145**	**$154**	**$176**	**$205**	**$232**	**$263**	**$292**	**$322**	**6%**	**14%**	**17%**	**13%**	**13%**	**11%**	**10%**
Total OUS Market	**$145**	**$154**	**$176**	**$205**	**$232**	**$263**	**$292**	**$322**	6%	14%	17%	13%	13%	11%	10%
Johnson & Johnson	$49	$51	$55	$65	$73	$80	$88	$97	4%	8%	18%	12%	10%	10%	10%
Boston Scientific	$47	$53	$66	$70	$77	$81	$86	$91	12%	25%	7%	10%	5%	6%	6%
Guidant	$8	$11	$17	$22	$27	$32	$38	$46	40%	53%	31%	21%	18%	20%	21%
Medtronic	$8	$8	$6	$7	$8	$8	$9	$10	0%	-25%	17%	10%	10%	10%	10%
CR Bard	$22	$21	$22	$29	$33	$37	$40	$44	-5%	5%	32%	15%	10%	10%	10%
EV3 (IntraTherapeutics)	$6	$6	$8	$10	$12	$20	$25	$30	0%	33%	25%	20%	67%	25%	20%
Other	$5	$4	$2	$2	$2	$5	$5	$3	NM	NM	NM	0%	NM	NM	NM
Total OUS Market Shares	100%	100%	100%	100%	100%	100%	100%	100%							
Johnson & Johnson	34%	33%	31%	32%	31%	30%	30%	30%							
Boston Scientific	32%	34%	37%	34%	33%	31%	29%	28%							
Guidant	6%	7%	10%	11%	12%	12%	13%	14%							
Medtronic	6%	5%	3%	3%	3%	3%	3%	3%							
CR Bard	15%	14%	13%	14%	14%	14%	14%	14%							
EV3 (IntraTherapeutics)	4%	4%	5%	5%	5%	8%	9%	9%							
Other	2%	1%	1%	1%	0%	1%	1%	0%							

Source: Company data, Morgan Stanley Research

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Exhibit 15

Peripheral Stents Estimated Worldwide Sales, 2001-2008E

($ millions)	2001	2002	2003	2004E	2005E	2006E	2007E	2008E	02/01	03/02	04/03	05/04	06/05	07/06	08/07
Lower Body															
Iliac	$260	$292	$321	$355	$381	$403	$427	$449	12%	10%	11%	7%	6%	6%	5%
Femoral/Popliteal	$50	$53	$63	$77	$96	$122	$153	$183	8%	18%	23%	25%	28%	25%	20%
Upper Body															
Renal/Subclavian	$100	$114	$132	$163	$201	$234	$269	$300	14%	16%	23%	23%	16%	15%	12%
Total Worldwide Market	**$409**	**$459**	**$516**	**$595**	**$677**	**$759**	**$848**	**$932**	**12%**	**13%**	**15%**	**14%**	**12%**	**12%**	**10%**
Total WW Market	**$409**	**$459**	**$516**	**$595**	**$677**	**$759**	**$848**	**$931**							
Johnson & Johnson	$162	$182	$204	$235	$264	$290	$320	$356	13%	12%	15%	12%	10%	10%	11%
Boston Scientific	$141	$152	$166	$172	$184	$193	$204	$215	8%	9%	4%	7%	5%	6%	5%
Guidant	$39	$53	$65	$82	$95	$107	$119	$134	35%	23%	25%	17%	13%	11%	12%
Medtronic	$16	$19	$20	$22	$25	$26	$29	$30	18%	8%	12%	10%	7%	11%	3%
CR Bard	$35	$36	$42	$60	$70	$77	$85	$94	3%	17%	43%	17%	10%	10%	10%
EV3 (IntraTherapeutics)	$12	$12	$16	$20	$24	$40	$55	$70	0%	33%	25%	20%	67%	38%	27%
Other	$5	$6	$4	$4	$15	$25	$35	$33	NM	NM	0%	275%	67%	40%	-6%
Total OUS Market Shares	100%	100%	100%	100%	100%	100%	100%	100%							
Johnson & Johnson	39%	40%	39%	39%	39%	38%	38%	38%							
Boston Scientific	34%	33%	32%	29%	27%	25%	24%	23%							
Guidant	10%	12%	13%	14%	14%	14%	14%	14%							
Medtronic	4%	4%	4%	4%	4%	3%	3%	3%							
CR Bard	9%	8%	8%	10%	10%	10%	10%	10%							
EV3 (IntraTherapeutics)	3%	3%	3%	3%	4%	5%	6%	8%							
Other	1%	1%	1%	1%	2%	3%	4%	4%							

Source: Company data, Morgan Stanley Research

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Exhibit 16

Atherectomy Estimated Worldwide Sales, 2001-2008E

($ millions)		2001	2002	2003A	2004E	2005E	2006E	2007E	2008E	02/01	03/02	04/03	05/04	06/05	07/06	08/07
US																
Boston Scientific	IVT Cutting Balloon	$70	$125	$96	$60	$48	$43	$39	$35	79%	-23%	-38%	-20%	-10%	-9%	-10%
	Rotoblator	$45	$31	$25	$22	$14	$11	$11	$11	-31%	-19%	-12%	-36%	-21%	0%	0%
Guidant	DCA	$4	$3	$2	$1	$1	$1	$1	$1	-20%	-53%	-20%	-10%	-10%	-10%	-10%
	X-Tech Cutting Balloon	$0	$0	$2	$6	$10	$12	$10	$10	NM	NM	NM	67%	20%	-17%	0%
Total US Market		$119	$159	$125	$89	$73	$67	$61	$57	34%	-22%	-28%	-18%	-8%	-9%	-7%
US Share																
Boston Scientific		97%	98%	97%	92%	85%	81%	82%	81%							
Guidant		3%	2%	3%	8%	15%	19%	18%	19%							

Estimated International Market, 2001-2008E

($ millions)		2001	2002	2003A	2004E	2005E	2006E	2007E	2008E	02/01	03/02	04/03	05/04	06/05	06/05	06/05
Boston Scientific	IVT Cutting Balloon	$20	$35	$52	$38	$30	$27	$27	$27	75%	49%	-27%	-21%	-10%	0%	0%
	Rotoblator	$35	$33	$27	$17	$14	$12	$12	$11	-6%	-18%	-37%	-18%	-14%	0%	-8%
Guidant	DCA	$11	$14	$14	$13	$10	$8	$6	$5	28%	-2%	-5%	-24%	-20%	-25%	-17%
	X-Tech Cutting Balloon	$0	$0	$2	$4	$6	$8	$6	$6	NM	NM	100%	50%	33%	-25%	0%
Total		$66	$82	$95	$72	$60	$55	$51	$49	24%	15%	-24%	-17%	-8%	-7%	-4%
International Share																
Boston Scientific		83%	83%	83%	76%	73%	71%	76%	78%							
Guidant		17%	17%	17%	24%	27%	29%	24%	22%							

Estimated Worldwide Market, 2001-2008E

($ millions)		2001	2002	2003A	2004E	2005E	2006E	2007E	2008E	02/01	03/02	04/03	05/04	06/05	06/05	06/05
Boston Scientific	IVT Cutting Balloon	$90	$160	$148	$98	$78	$70	$66	$62	78%	-8%	-34%	-20%	-10%	-6%	-6%
	Rotoblator	$80	$64	$52	$39	$28	$23	$23	$22	-20%	-19%	-25%	-28%	-18%	0%	-4%
Guidant	DCA	$15	$17	$15	$14	$11	$9	$7	$6	15%	-11%	-6%	-23%	-19%	-23%	-16%
	X-Tech Cutting Balloon	$0	$0	$4	$10	$16	$20	$16	$16	NM	NM	150%	60%	25%	-20%	0%
Total		$185	$241	$219	$161	$133	$122	$112	$106	30%	-9%	-26%	-18%	-8%	-8%	-5%

Source: Morgan Stanley Research

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Exhibit 17

Intravascular Ultrasound Estimated U.S. Sales, 2001-2008E

($ millions)	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
US IVUS Procedures (000's)	73	83	91	100	109	119	130	141
% Growth	NM	*14%*	*10%*	*10%*	*9%*	*9%*	*9%*	*9%*
Total US Market	**$48**	**$57**	**$71**	**$78**	**$88**	**$99**	**$108**	**$117**
Catheter Revenues	*$40*	*$46*	*$59*	*$65*	*$71*	*$77*	*$84*	*$92*
Console Revenues	*$8*	*$11*	*$12*	*$13*	*$17*	*$22*	*$24*	*$25*
Company Totals	**$47**	**$57**	**$71**	**$78**	**$88**	**$99**	**$108**	**$117**
Boston Scientific	S27	$34	$46	$46	$50	$54	$58	$62
Volcano	S20	$23	$25	$32	$38	$45	$50	$55
Terumo	$0	$0	$0	$0	$0	$0	$0	$0

	01/00	02/01	03/02	04/03	05/04	06/05	07/06	08/07
US Market Growth	**NM**	**18%**	**26%**	**9%**	**13%**	**13%**	**9%**	**8%**
Boston Scientific	NM	26%	35%	0%	9%	8%	7%	7%
Volcano	NM	15%	9%	26%	20%	18%	11%	10%
Terumo	NM	NM	NM	NM	NM	NM	NM	NM

	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
US Market Share	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	57%	60%	65%	59%	57%	55%	54%	53%
Volcano	43%	40%	35%	41%	43%	45%	46%	47%
Terumo	0%	0%	0%	0%	0%	0%	0%	0%

Source: Company data, Morgan Stanley Research

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Exhibit 18

Intravascular Ultrasound Estimated International Sales, 2001-2008E

($ millions)	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Int'l IVUS Procedures (000's)	66	80	101	120	138	158	178	199
% Growth	nm	*21%*	*26%*	*19%*	*15%*	*15%*	*12%*	*12%*
Total International Market	**$64**	**$76**	**$116**	**$146**	**$172**	**$185**	**$198**	**$212**
Catheter Revenues	*$49*	*$63*	*$88*	*$114*	*$147*	*$170*	*$188*	*$207*
Console Revenues	*$15*	*$13*	*$28*	*$32*	*$25*	*$15*	*$10*	*$5*
Company Totals	**$67**	**$78**	**$116**	**$146**	**$172**	**$185**	**$198**	**$212**
Boston Scientific	$42	$50	$88	$111	$122	$128	$134	$141
Volcano	$12	$13	$13	$18	$30	$35	$40	$45
Terumo	$13	$15	$15	$18	$20	$22	$24	$26

	01/00	02/01	03/02	04/03	05/04	06/05	07/06	08/07
International Market Growth	**NM**	**19%**	**53%**	**25%**	**18%**	**7%**	**7%**	**7%**
Boston Scientific	NM	19%	76%	26%	10%	5%	5%	5%
Volcano	NM	8%	-4%	40%	73%	16%	14%	13%
Terumo	NM	14%	2%	16%	14%	10%	9%	8%

	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
International Market Share	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	37%	37%	47%	50%	47%	45%	44%	43%
Volcano	11%	10%	7%	8%	12%	12%	13%	14%
Terumo	11%	11%	8%	8%	8%	8%	8%	8%

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Exhibit 19

Intravascular Ultrasound Estimated Worldwide Sales, 2001-2008E

($ millions)	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
WW IVUS Procedures (000's)	139	162	192	220	247	277	308	340
% Growth	NM	*17%*	*18%*	*15%*	*12%*	*12%*	*11%*	*11%*
Total Worldwide Market	**$112**	**$133**	**$187**	**$223**	**$260**	**$284**	**$306**	**$329**
Catheter Revenues	*$89*	*$109*	*$147*	*$179*	*$218*	*$247*	*$272*	*$299*
Console Revenues	*$23*	*$24*	*$40*	*$45*	*$42*	*$37*	*$34*	*$30*
Company Totals	**$114**	**$135**	**$187**	**$224**	**$260**	**$284**	**$306**	**$329**
Boston Scientific	S69	$84	$134	$157	$172	$182	$192	$203
Volcano	S32	$36	$38	$49	$68	$80	$90	$100
Terumo	S13	$15	$15	$18	$20	$22	$24	$26

	01/00	02/01	03/02	04/03	05/04	06/05	07/06	08/07
Worldwide Market Growth	**NM**	**18%**	**41%**	**19%**	**17%**	**9%**	**8%**	**7%**
Boston Scientific	NM	22%	60%	17%	10%	6%	5%	6%
Volcano	NM	13%	4%	31%	39%	17%	13%	11%
Terumo	NM	14%	2%	16%	14%	10%	9%	8%

	2001	2002	2003A	2004E	2005E	2006E	2007E	2008E
Worldwide Market Share	100%	100%	100%	100%	100%	100%	100%	100%
Boston Scientific	61%	62%	72%	70%	66%	64%	63%	62%
Volcano	28%	27%	20%	22%	26%	28%	29%	30%
Terumo	11%	11%	8%	8%	8%	8%	8%	8%

Source: Morgan Stanley Research

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Exhibit 20

Interventional Pharmaceuticals Estimated Worldwide Sales, 2003-2008E

($ millions)	2003	2004E	2005E	2006E	2007E	2008E
Total WW Market	**$5,357**	**$6,844**	**$7,818**	**$8,759**	**$9,511**	**$10,201**
GP IIb/IIIa Inhibitors	*$766*	*$772*	*$781*	*$804*	*$812*	*$819*
Aggrastat	96	84	91	96	102	108
Integrilin	306	325	346	381	399	415
ReoPro	364	363	345	327	311	296
Anti-Thrombins	*$2,124*	*$2,745*	*$2,998*	*$3,419*	*$3,787*	*$4,196*
Angiomax	86	147	212	299	355	420
Lovenox	2,038	2,598	2,786	3,120	3,432	3,776
Oral Platelet Inhibitors	*$2,467*	*$3,327*	*$4,039*	*$4,536*	*$4,912*	*$5,186*
Plavix	2,467	3,327	4,039	4,536	4,912	5,186

	2003	2004E	2005E	2006E	2007E	2008E
WW Market Growth	**23%**	**28%**	**14%**	**12%**	**9%**	**7%**
GP IIb/IIIa Inhibitors	*-5%*	*1%*	*1%*	*3%*	*1%*	*1%*
Aggrastat	-17%	-13%	8%	6%	6%	6%
Integrilin	1%	6%	6%	10%	5%	4%
ReoPro	-5%	0%	-5%	-5%	-5%	-5%
Anti-Thrombins	*27%*	*29%*	*9%*	*14%*	*11%*	*11%*
Angiomax	*123%*	72%	44%	41%	19%	18%
Lovenox	24%	27%	7%	12%	10%	10%
Oral Platelet Inhibitors	*31%*	*35%*	*21%*	*12%*	*8%*	*6%*
Plavix	31%	35%	21%	12%	8%	6%

[1] *Does not include estimates for generic heparin*

[2] *Estimates for Angiomax and Lovenox include uses outside the cath lab*

[3] *Does not include aspirin*

Source: Company data, Morgan Stanley Research

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Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Glenn Reicin and Matt Miksic.

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The information and opinions in this report were prepared by Morgan Stanley & Co. Incorporated and its affiliates (collectively, "Morgan Stanley").

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Within the last 12 months, Morgan Stanley has received compensation for investment banking services from Medtronic and Abbott Laboratories.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from St. Jude Medical, Medtronic, Abbott Laboratories and Boston Scientific.

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(as of January 31, 2005)

	Coverage Universe		Investment Banking Clients (IBC)		
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	647	35%	260	39%	40%
Equal-weight/Hold	845	45%	297	45%	35%
Underweight/Sell	378	20%	106	16%	28%
Total	1,870		663		

Data include common stock and ADRs currently assigned ratings. For disclosure purposes (in accordance with NASD and NYSE requirements), we note that Overweight, our most positive stock rating, most closely corresponds to a buy recommendation; Equal-weight and Underweight most closely correspond to neutral and sell recommendations, respectively. However, Overweight, Equal-weight, and Underweight are not the equivalent of buy, neutral, and sell but represent recommended relative weightings (see definitions below). An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations. Investment Banking Clients are companies from whom Morgan Stanley or an affiliate received investment banking compensation in the last 12 months.

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Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

More volatile (V). We estimate that this stock has more than a 25% chance of a price move (up or down) of more than 25% in a month, based on a quantitative assessment of historical data, or in the analyst's view, it is likely to become materially more volatile over the next 1-12 months compared with the past three years. Stocks with less than one year of trading history are automatically rated as more volatile (unless otherwise noted). We note that securities that we do not currently consider "more volatile" can still perform in that manner.

Unless otherwise specified, the time frame for price targets included in this report is 12 to 18 months. Ratings prior to March 18, 2002: SB=Strong Buy; OP=Outperform; N=Neutral; UP=Underperform. For definitions, please go to www.morganstanley.com/companycharts.

Analyst Industry Views

Attractive (A). The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark named on the cover of this report.

In-Line (I). The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark named on the cover of this report.

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